WATER SUPPLY OUTLOOK FOR MONTANA

Prepared by

U. S. DEPARTMENT of AGRICULTURE ★ SOIL CONSERVATION SERVICE

Collaborating with

MONTANA AGRICULTURAL EXPERIMENT STATION

Data included in this report were obtained by the agencies named above in cooperation with Federal, State, and private organizations listed on the inside back cover of this report.

AS OF
APR. 1, 1973

TO RECIPIENTS OF WATER SUPPLY OUTLOOK REPORTS:

Most of the usable water in western states originates as mountain snowfall. This snowfall accumulates during the winter and spring, several months before the snow melts and appears as streamflow. Since the runoff from precipitation as snow is delayed, estimates of snowmelt runoff can be made well in advance of its occurrence. Streamflow forecasts published in this report are based principally on measurement of the water equivalent of the mountain snowpack.

Forecasts become more accurate as more of the data affecting runoff are measured. All forecasts assume that climatic factors during the remainder of the snow accumulation and melt season will interact with a resultant average effect on runoff. Early season forecasts are therefore subject to a greater change than those made on later dates.

The snow course measurement is obtained by sampling snow depth and water equivalent at surveyed and marked locations in mountain areas. A total of about ten samples are taken at each location. The average of these are reported as snow depth and water equivalent. These measurements are repeated in the same location near the same dates each year.

Snow surveys are made monthly or semi-monthly from January 1 through June 1 in most states. There are about 1900 snow courses in Western United States and in the Columbia Basin in British Columbia. Networks of automatic snow water equivalent and related data sensing devices, along with radio telemetry are expanding and will provide a continuous record of snow water and other parameters at key locations.

Detailed data on snow course and soil moisture measurements are presented in state and local reports. Other data on reservoir storage, summaries of precipitation, current streamflow, and soil moisture conditions at valley elevations are also included. The report for Western United States presents a broad picture of water supply outlook conditions, including selected streamflow forecasts, summary of snow accumulation to date, and storage in larger reservoirs.

Snow survey and soil moisture data for the period of record are published by the Soil Conservation Service by states about every five years. Data for the current year is summarized in a West-wide basic data summary and published about October 1 of each year.

PUBLISHED BY SOIL CONSERVATION SERVICE

The Soil Conservation Service publishes reports following the principal snow survey dates from January 1 through June 1 in cooperation with state water administrators, agricultural experiment stations and others. Copies of the reports for Western United States and all state reports may be obtained from Soil Conservation Service, Western Regional Technical Service Center, Room 209, 511 N. W. Broadway, Portland, Oregon 97209.

Copies of state and local reports may also be obtained from state offices of the Soil Conservation Service in the following states:

STATE	ADDRESS
Alaska	204 E. 5th. Ave., Room 217, Anchorage, Alaska 99501
Arizona	6029 Federal Building, Phoenix, Arizona 85025
Colorado (N. Mex.)	P. O. Box 17107, Denver, Colorado 80217
Idaho	Room 345, 304 N. 8th. St., Boise, Idaho 83702
Montana	P. O. Box 970, Bozeman, Montana 59715
Nevada	P. O. Box 4850, Reno Nevada 89505
Oregon	1218 S. W. Washington St., Portland, Oregon 97205
Utah	4012 Federal Bldg., 125 South State St., Salt Lake City, Utah 84111
Washington	360 U.S. Court House, Spokane, Washington 99201
Wyoming	P. O. Box 2440, Casper, Wyoming 82601

PUBLISHED BY OTHER AGENCIES

Water Supply Outlook reports prepared by other agencies include a report for California by the Water Supply Forecast and Snow Surveys Unit, California Department of Water Resources, P. O. Box 388, Sacramento, California 95802 --- and for British Columbia by the Department of Lands, Forests and Water Resources, Water Resources Service, Parliament Building, Victoria, British Columbia

U. S. DEPARTMENT of AGRICULTURE
CONSERVATION OF WATER BEGINS WITH THE SNOW SURVEY
SOIL CONSERVATION SERVICE

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WATER SUPPLY OUTLOOK FOR MONTANA

and

FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS

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MONTANA WATER SUPPLY OUTLOOK
April 1, 1973

The mountain snowfall in northwestern Montana continues to be much below normal. Some improvement was noted along the southern border of the state. Isolated areas in southern Montana received heavy snowfall during the last two weeks of March.

Streamflow west of the Continental Divide and streams tributary to the Missouri River are expected to have one of the lowest runoffs in recent years.

COLUMBIA RIVER DRAINAGE

Snow - Mountain snowfall was below average in all drainages during March. A few snow courses in the Flathead and Clark Fork drainages have record low April 1 water contents.

Snowpack in the Kootenai River headwaters in Canada is approximately 20 percent below average. All of the Montana Columbia River drainage snowpack is 55 to 75 percent average. The low snowpacks are particularly noticeable at higher elevations.

The western portion of the Columbia River drainage has a below average mountain soil moisture content. Soil moisture in other areas is generally near average to slightly below.

Streamflow - Spring and summer streamflow is forecast to be one of the lowest recorded in recent years, but is well above the record low runoff in the late 1930s and early 1940s. Runoff for nearly all streams is expected to be between 60 and 80 percent average. Late season irrigation supplies will be reduced by lack of a higher elevation snowpack.

MISSOURI RIVER DRAINAGE

Snow - Snowpack improved in some areas in the extreme southern areas during March, but remained below average in many other areas. The Sun-Marias-Teton area has one of the lowest snowpacks in recent years and is comparable to 1960, 1961 and 1963. In contrast, the extreme headwaters of the Madison and Red Rock Rivers, and the Gravelly Mountains, have a near or above average snowpack. In many basins the low elevation snow is above average but higher elevations have a deficient snowpack.

Nearly all mountain soils contain average or above average moisture with the exception of below average soil moisture in the Big Hole River drainage.

Streamflow - Near average spring and summer runoff is forecast for the upper Red Rock, Madison and Ruby River drainages. The Sun, Marias, Teton and Dearborn Rivers are expected to have runoff comparable to the low streamflow of 1963. Other streams on the Missouri River drainage should produce runoff between 20 and 50 percent below average. Deficient late season irrigation water supplies can be expected on nearly all streams as a result of a sparse high elevation snowpack.

YELLOWSTONE RIVER DRAINAGE

Snow - Heavy snowfall was recorded during the last two weeks of March along the face of the Beartooth Mountains, with above average amounts recorded in the northern portion of the Big Horn Mountains. However, these heavy amounts were not recorded at snow courses in the interior of the Absaroka and Beartooth Ranges. Many lower elevations have a near or above average snowpack, while higher elevations generally have below average water stored in the snow cover.

Mountain soils have above average moisture.

Streamflow - Spring and summer streamflow from drainages along the extreme northern slope of the Beartooth Range should be near or above average. Nearly all other streams and rivers are forecast to have below average runoff, comparable to the low runoff of 1966. Deficient late season irrigation water supplies can be expected from natural streamflow due to the lack of a substantial higher elevation snowpack.

SUMMARY of SNOW MEASUREMENTS (COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF:	
		Last Year	Average
COLUMBIA RIVER DRAINAGE			
Kootenai	19	52	72
Flathead	29	53	74
Upper Clark Fork	25	47	72
Lower Clark Fork	11	43	61
Bitterroot	13	45	70
MISSOURI RIVER DRAINAGE			
Jefferson	38	59	85
Madison	20	73	86
Gallatin	13	79	85
Missouri Main Stem	11	50	72
Judith-Musselshell	8	57	72
Marias-Teton-Sun	11	37	56
Milk (Headwaters)	3	40	57
YELLOWSTONE RIVER DRAINAGE			
Yellowstone	27	61	79
Little Big Horn	7	72	85

SOIL MOISTURE

DRAINAGE BASIN and/or STATION		Profile (Inches)		Date of Survey	Soil Moisture (Inches)		
Name	Elevation	Depth	Capacity		This Year	Last Year	Average +
COLUMBIA RIVER BASIN							
Kootenai							
Baree Trail	3800	48	7.5	4/03	5.7	6.3	6.5
Murphy Lake R. S.	3000	48	22.6	4/02	20.0	22.9	21.3
Raven R. S.	3050	48	23.0	4/03	14.0	15.7	20.4
Flathead							
Desert Mountain	5600	54	8.4	3/29	6.9	8.8	7.6
Marias Pass	5250	54	6.5	3/25	5.9	8.5	5.6
Clark Fork							
Black Pine	7100	48	10.0	3/30	7.4	7.5	7.4
Lubrecht Forest	4100	48	26.8	3/29	14.4	24.8	-
Seeley Lake R. S.	4030	48	11.9	4/03	7.5	12.4	10.2
Skalkaho Summit	7260	48	10.8	3/29	9.7	10.0	9.7
Bitterroot							
Gibbons Pass	7100	48	7.1	3/30	2.8	3.1	5.1
Lolo Pass	5250	48	10.6	3/30	5.8	4.3	6.1
MISSOURI RIVER BASIN							
Beaverhead							
Lakeview	6700	48	15.3	4/02	15.6	17.3	8.6
Madison							
West Yellowstone	6700	48	6.5	4/01	2.6	3.3	2.8
Gallatin							
Bridger Bowl	7250	48	17.0	3/27	16.2	16.0	16.3
College Site No. 2	4856	54	17.7	3/30	19.0	18.4	16.6
Lick Creek	6860	48	18.8	3/28	16.5	17.5	17.3
Twenty-One Mile	7150	48	10.0	4/01	6.8	7.1	4.1
Missouri Main Stem							
Kings Hill	7420	48	11.8	3/28	8.4	4.6	6.5
Stemple Pass	6350	48	5.9	3/28	3.5	4.3	4.4
Milk							
Beaver Creek	3950	48	20.9	3/29	8.6	15.6	-
Rocky Boy	4700	36	10.1	3/29	6.1	8.8	-
Yellowstone							
Battle Ridge	6020	48	17.6	3/27	12.2	12.4	13.9
Northeast Entrance	7350	48	9.4			7.1	6.3

+ Average for period of record.

RESERVOIR STORAGE (Thousand Acre Feet) END OF MONTH

Basin or Stream	RESERVOIR	Usable Capacity	Usable Storage		
			This Year	Last Year	Average
COLUMBIA RIVER BASIN					
Kootenai	Koocanusa	4,965.0	273.1	141.4	-
Flathead	Hungry Horse	3,428.0	2,029.0	1,495.0	2,077.0
	Flathead Lake	1,791.0	669.4	1,034.0	746.7
	Camas (4)	45.2	32.9	37.6	30.1
	Mission Valley (8)	100.3	33.5	33.0	35.4
Clark Fork	Georgetown Lake	31.0	22.9	25.8	22.1
	Noxon Rapids	334.6	149.1	175.4	188.0
	Nevada Creek	12.6	4.5	9.8	6.6
Bitterroot	Como	34.9		11.2	13.4
	Painted Rocks	31.7	13.5	15.7	19.7
MISSOURI RIVER BASIN					
Beaverhead	Clark Canyon	328.9	160.7	155.0	135.6
	Lima	84.0	48.9	58.5	24.2
Ruby	Ruby	38.8	29.7	32.4	29.9
Madison	Hebgen Lake	377.5	253.8	254.3	176.7
	Ennis Lake	41.0	24.9	38.2	35.5
Gallatin	Middle Creek	8.0	4.2	4.2	3.9
Missouri	Canyon Ferry	2,043.0	1,462.0	1,614.0	1,546.0
	Hauser & Helena	61.9	60.7	66.6	50.5
	Lake Helena	10.4	10.0	12.2	7.3
	Holter Lake	81.9	81.4	27.3	54.7
	Smith River	10.7	5.1	5.2	7.0
	Bair	7.0	4.5	4.4	5.0
	Martinsdale	23.1	10.2	7.7	8.0
	Deadman's Basin	72.2	61.8	50.2	48.7
	Fort Peck	19,410.0	16,190.0	16,590.0	11,050.0
Sun	Gibson	105.0	58.0	50.0	51.0
	Willow Creek	32.3	22.5	17.2	22.0
	Pishkun	32.0	17.0	23.2	17.5
Marias	Lower Two Medicine	16.6		-	0.0
	Four Horns	19.2		-	12.2
	Swift	30.0	17.3	21.2	21.5
	Lake Frances	112.0	94.1	71.8	84.2
	Tiber	1,347.0	494.3	502.8	643.7
Milk	Fresno	127.2	87.0	120.1	82.1
	Nelson	66.8	44.8	39.6	40.2
	Lake Sherburne	66.1	15.4	27.7	22.8
Yellowstone	Mystic Lake	20.8	3.4	3.5	5.0
	Tongue River	68.0		-	28.7
	Cooney	27.5	17.0	12.0	15.2
Bighorn	Bighorn Lake	1,356.0	893.4	926.0	717.4

Average based on 1953-67 period.

STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR FORECAST Thousand Acre Feet	THIS YEAR FORECAST Percent of Average	FORECAST PERIOD	PAST RECORD THOUSAND ACRE FEET Last Year	PAST RECORD THOUSAND ACRE FEET Average
COLUMBIA RIVER BASIN					
FISHER RIVER					
Libby (near)	160	54	Apr-Sept		298
	150	53	Apr-July		291
KOOTENAI RIVER					
Libby (at)	6650	83	Apr-Sept	9929	8025
	5750	83	Apr-July	8546	6956
YAAK RIVER					
Troy (near)	415	72	Apr-Sept		573
	390	71	Apr-July		549
KOOTENAI RIVER					
Leonia (at)	7400	81	Apr-Sept	11041	9198
	6500	80	Apr-July	9703	8072
	5250	81	Apr-June	7798	6463
RACETRACK CREEK					
Anaconda (near)	26.5	78	Apr-Sept		34.1
	21.5	78	Apr-July		27.6
FLINT CREEK					
Boulder Creek (below)(3)	54.0	78	Apr-Sept		69.6
	43.0	78	Apr-July		55.1
MIDDLE FORK ROCK CREEK					
Philipsburg (near)	51.5	69	Apr-Sept		73.4
	46.0	70	Apr-July		66.2
NEVADA CREEK					
Finn (near)	11.5	56	Apr-Sept		20.7
	10.6	55	Apr-July		19.3
BLACKFOOT RIVER					
Bonner (near)	660	66	Apr-Sept	1429	1008
	570	63	Apr-July	1310	912
	490	62	Apr-June	1156	788
CLARK FORK RIVER					
Milltown (above)(4)	600	79	Apr-Sept	1000	755
	520	79	Apr-July	890	659
	440	78	Apr-June	782	562
CLARK FORK RIVER					
Missoula (above)	1260	71	Apr-Sept	2430	1763
	1090	69	Apr-July	2201	1572
	930	69	Apr-June	1937	1350

(3) Sum Flint Creek at Maxville and Boulder Creek at Maxville.
(4) Difference in observed flow Clark Fork above Missoula and Blackfoot near Bonner.

Average based on 1953-67 period.

USDA-SCS-PORTLAND, OREG 1969 M-4240

STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR FORECAST Thousand Acre Feet	THIS YEAR FORECAST Percent of Average	FORECAST PERIOD	PAST RECORD THOUSAND ACRE FEET Last Year	PAST RECORD THOUSAND ACRE FEET Average
WEST FORK BITTERROOT RIVER					
Conner (near)(5)	100	59	Apr-Sept		170
	95.0	60	Apr-July		158
BITTERROOT RIVER					
Darby (near)	365	65	Apr-Sept	726	558
	335	65	Apr-July	683	517
	295	65	Apr-June	606	453
SKALKAHO CREEK					
Hamilton (near)	41.5	74	Apr-Sept		55.8
	35.5	75	Apr-July		48.9
BURNT FORK CREEK					
Stevensville (near)(10)	25.8	75	Apr-Sept		34.2
	22.5	76	Apr-July		29.6
BITTERROOT RIVER					
Missoula (at)(6)	910	62	Apr-Sept		1466
	835	61	Apr-July		1360
	720	61	Apr-June		1175
CLARK FORK RIVER					
Missoula (below)	2170	67	Apr-Sept		3229
	1925	66	Apr-July		2932
	1650	65	Apr-June		2525
ST. REGIS RIVER					
St. Regis (near)	200	60	Apr-Sept		332
	190	60	Apr-July		316
CLARK FORK RIVER					
St. Regis (at)	2850	65	Apr-Sept	6399	4398
	2575	64	Apr-July	5908	3993
	2200	64	Apr-June	5170	3451
NORTH FORK FLATHEAD RIVER					
Columbia Falls (near)	1550	77	Apr-Sept		2023
	1420	77	Apr-July		1846
	1200	77	Apr-June		1562
MIDDLE FORK FLATHEAD RIVER					
West Glacier (near)	1350	70	Apr-Sept	2354	1931
	1250	70	Apr-July	2165	1791
	1050	69	Apr-June	1832	1521
SOUTH FORK FLATHEAD RIVER					
Columbia Falls (near)(7)	1600	68	Apr-Sept	2850	2358
	1520	68	Apr-July	2688	2235
	1350	69	Apr-June	2338	1967

(5) Adjusted for storage in Painted Rocks Reservoir.
(6) Difference in observed flow Clark Fork above and below Missoula.
(7) Adjusted for storage in Hungry Horse Reservoir.
(10) Adjusted for diversion into Sunset Highline Canal.

Average based on 1953-67 period.

USDA-SCS-PORTLAND, OREG. 1969 M-4240

STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR FORECAST Thousand Acre Feet	THIS YEAR FORECAST Percent of Average	FORECAST PERIOD	PAST RECORD THOUSAND ACRE FEET Last Year	PAST RECORD THOUSAND ACRE FEET Average
FLATHEAD RIVER					
Columbia Falls (at)(7)	4600	71	Apr-Sept	7821	6467
	4300	72	Apr-July	7226	6003
	3700	72	Apr-June	6164	5155
SWAN RIVER					
Big Fork (near)	445	65	Apr-Sept		688
	390	64	Apr-July		607
	320	64	Apr-June		496
FLATHEAD RIVER					
Polson (near)(8)	5350	69	Apr-Sept	9182	7701
	4950	69	Apr-July	8495	7157
	4250	69	Apr-June	7175	6122
CLARK FORK RIVER					
Plains (near)(8)	8500	68	Apr-Sept	16073	12482
	7650	67	Apr-July	14739	11448
	6600	67	Apr-June	12597	9802
THOMPSON RIVER					
Thompson Falls (near)	165	58	Apr-Sept		283
	145	57	Apr-July		253
PROSPECT CREEK					
Thompson Falls (at)	93	61	Apr-Sept		152
	85	60	Apr-July		143
CLARK FORK RIVER					
Whitehorse Rapids (at)(9)	9400	67	Apr-Sept		13987
	8500	67	Apr-July		12787
	7300	66	Apr-June		10953

(7) Adjusted for storage in Hungry Horse Reservoir.
(8) Adjusted for storage in Hungry Horse Reservoir and Flathead Lake.
(9) Adjusted for storage in Hungry Horse, Flathead Lake and Noxon Rapids Reservoirs.

Average based on 1953-67 period.

USDA-SCS-PORTLAND, OREG. 1969 M-4240

STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR FORECAST Thousand Acre Feet	THIS YEAR FORECAST Percent of Average	FORECAST PERIOD	PAST RECORD THOUSAND ACRE FEET Last Year	PAST RECORD THOUSAND ACRE FEET Average
MISSOURI RIVER BASIN					
BEAVERHEAD RIVER					
Grant (near)(11)(12)	80.0	76	Apr-Sept	207	106
	70.0	78	Apr-July	148	90
RUBY RIVER					
Alder (near)	80.0	100	Apr-Sept		80.0
	66.0	99	Apr-July		67.0
BIG HOLE RIVER					
Melrose (near)	480	70	Apr-Sept		690
	450	70	Apr-July		642
BIRCH CREEK					
Glen (near)	8.5	65	Apr-Sept		13.1
	6.7	61	Apr-July		11.0
JEFFERSON RIVER					
Silver Star (at)	590	68	Apr-Sept		863
	520	68	Apr-July		770
BOULDER RIVER					
Boulder (near)	62.0	79	Apr-Sept		78.9
	60.0	80	Apr-July		75.5
WILLOW CREEK					
Harrison (near)	10.0	65	Apr-Sept		15.5
	9.2	65	Apr-July		14.2
MADISON RIVER					
West Yellowstone (near)	190	90	Apr-Sept		212
	145	90	Apr-July		160
MADISON RIVER					
Grayling (near)(13)	425	99	Apr-Sept	626	430
	330	98	Apr-July	487	337
MADISON RIVER					
McAllister (near)(14)	690	94	Apr-Sept	1110	734
	555	95	Apr-July	872	587
GALLATIN RIVER					
Gateway (near)	395	86	Apr-Sept		461
	340	87	Apr-July		393
BRIDGER CREEK					
Bozeman (near)	16.3	79	Apr-Sept		20.5
	15.0	78	Apr-July		19.3

(11) Adjusted for storage in Lima Reservoir.
(12) Adjusted for storage in Clark Canyon Reservoir.
(13) Adjusted for storage in Hebgen Lake.
(14) Adjusted for storage in Hebgen and Ennis Lakes.

Average based on 1953-67 period.

USDA-SCS-PORTLAND, OREG. 1966 M-4240

STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR FORECAST Thousand Acre Feet	THIS YEAR FORECAST Percent of Average	FORECAST PERIOD	PAST RECORD THOUSAND ACRE FEET Last Year	PAST RECORD THOUSAND ACRE FEET Average
HYALITE CREEK					
Bozeman (near)(15)	33.8	90	Apr-Sept		37.4
	29.5	91	Apr-July		32.5
GALLATIN RIVER					
Logan (at)	370	78	Apr-Sept		473
	315	78	Apr-July		401
MISSOURI RIVER					
Toston (at)(16)	1600	76	Apr-Sept	2784	2105
	1370	75	Apr-July	2404	1836
SHEEP CREEK					
White Sulphur Springs (near)	11.5	62	Apr-Sept		18.4
	9.6	60	Apr-July		16.0
SUN RIVER					
Gibson Dam (at)(17)	350	58	Apr-Sept	749	604
	315	57	Apr-July	685	555
BELT CREEK					
Monarch (near)	55.0	50	Apr-Sept		109
	50.0	50	Apr-July		100
MISSOURI RIVER					
Fort Benton (at)(18)	2000	60	Apr-Sept		3321
	1635	58	Apr-July		2834
TWO MEDICINE CREEK					
Browning (near)(19)	155	61	Apr-Sept		256
	145	59	Apr-July		245
BADGER CREEK					
Browning (near)	83.0	62	Apr-Sept		133
	70.0	60	Apr-July		116
CUT BANK CREEK					
Cut Bank (at)	66.0	55	Apr-Sept		120
	60.0	54	Apr-July		111
MARIAS RIVER					
Shelby (near)(20)	260	43	Apr-Sept		604
	240	41	Apr-July		581

(15) Adjusted for storage in Middle Creek Reservoir.
(16) Adjusted for storage in Hebgen and Ennis Lakes and Clark Canyon Reservoir.
(17) Adjusted for storage in Gibson Reservoir and diversions.
(18) Adjusted for storage in Canyon Ferry Reservoir.
(19) Adjusted for storage in Two Medicine Reservoir and diversions into Two Medicine Canal.
(20) Adjusted for storage in Two Medicine, Four Horns, Lake Frances and Swift Reservoirs.

Average based on 1953-67 period.

USDA-SCS-PORTLAND, OREG. 1969 M-4240

STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR FORECAST Thousand Acre Feet	THIS YEAR FORECAST Percent of Average	FORECAST PERIOD	PAST RECORD THOUSAND ACRE FEET Last Year	PAST RECORD THOUSAND ACRE FEET Average
MISSOURI RIVER					
Virgelle (at)(21)	2250	55	Apr-Sept		4036
	1850	53	Apr-July		3511
SOUTH FORK JUDITH RIVER					
Utica (near)	5.6	45	Apr-Sept		12.5
	5.0	43	Apr-July		11.7
MISSOURI RIVER					
Landusky (near)(21)	2450	55	Apr-Sept		4484
	2000	51	Apr-July		3889
NORTH FORK MUSSELSHELL RIVER					
Delpine (near)	2.5	46	Apr-Sept		5.5
	2.0	43	Apr-July		4.7
SOUTH FORK MUSSELSHELL RIVER					
Martinsdale (above)	23.0	50	Apr-Sept		46.2
	22.5	51	Apr-July		44.0
MISSOURI RIVER					
Fort Peck Dam (below)(22)	2100	49	Apr-Sept		4312
	1850	48	Apr-July		3824
MILK RIVER					
Eastern Crossing (at)	195	74	Apr-Sept		281
MISSOURI RIVER					
Wolf Point (near)(22)	2350	50	Apr-Sept		4683
	1950	47	Apr-July		4168
MISSOURI RIVER					
Williston, N.D. (near)(29)	6500	59	Apr-Sept		10998
	5800	59	Apr-July		9823
SASKATCHEWAN RIVER BASIN					
ST. MARY RIVER					
Babb (near)(30)	390	79	Apr-Sept		492
	330	77	Apr-July		427

(21) Adjusted for storage in Canyon Ferry and Tiber Reservoirs.
(22) Adjusted for storage in Canyon Ferry, Tiber and Fort Peck Reservoirs.
(29) Adjusted for storage in Canyon Ferry, Tiber, Fort Peck, Buffalo Bill, Boysen and Yellowtail Reservoirs. Sum Yellowstone River near Sidney and Missouri River near Culbertson.
(30) Adjusted for storage in Lake Sherburne.

Average based on 1953-67 period.

USDA-SCS-PORTLAND, OREG. 1969 M-4240

BASIN, STREAM and/or FORECAST POINT	THIS YEAR FORECAST Thousand Acre Feet	THIS YEAR FORECAST Percent of Average	FORECAST PERIOD	PAST RECORD THOUSAND ACRE FEET Last Year	PAST RECORD THOUSAND ACRE FEET Average
YELLOWSTONE RIVER BASIN					
YELLOWSTONE RIVER					
Corwin Springs (at)	1560	83	Apr-Sept	2349	1880
	1300	83	Apr-July	1952	1575
YELLOWSTONE RIVER					
Livingston (near)	1720	81	Apr-Sept		2122
	1420	80	Apr-July		1769
BOULDER RIVER					
Big Timber (at)	255	73	Apr-Sept		347
	240	73	Apr-July		327
STILLWATER RIVER					
Absarokee (near)(25)	440	79	Apr-Sept		558
	375	79	Apr-July		474
CLARKS FORK RIVER					
Belfry (near)	455	78	Apr-Sept		582
	420	79	Apr-July		530
ROCK CREEK					
Red Lodge (near)	84	77	Apr-Sept	129	106
	65	79	Apr-July	92.8	82.1
YELLOWSTONE RIVER					
Billings (at)	2950	75	Apr-Sept	4532	3944
	2540	75	Apr-July	3650	3400
BIG HORN RIVER					
St. Xavier (near)(26)	1100	64	Apr-Sept	2153	1719
	1050	64	Apr-July	1861	1625
LITTLE BIG HORN RIVER					
Lodgegrass (near)(28)	80	65	Apr-Sept		123
	70	64	Apr-July		109
YELLOWSTONE RIVER					
Miles City (at)(27)	4150	71	Apr-Sept		5850
	3650	71	Apr-July		5177
YELLOWSTONE RIVER					
Sidney (near)(27)	4000	66	Apr-Sept		6069
	3650	67	Apr-July		5454

(25) Adjusted for storage in Mystic Lake.
(26) Adjusted for storage in Buffalo Bill, Boysen, Bull Lake and Yellowtail Reservoirs.
(27) Adjusted for storage in Buffalo Bill, Boysen and Yellowtail Reservoirs.
(28) Sum Little Big Horn below Pass Creek and Lodgegrass Creek near Wyola.

Average based on 1953-67 period.

USDA-SCS-PORTLAND, OREG. 1969 M-4240

COLUMBIA RIVER BASIN

KOOTENAI RIVER

DRAINAGE BASIN and/or SNOW COURSE NAME	Elevation	THIS YEAR Date of Survey	Snow Depth (Inches)	Water Content (Inches)	PAST RECORD Water Content (inches) Last Year	Average
Bald Eagle Peak	5700	3/30	115	48.4	85.2	-
Banfield Mountain	5600	3/29	49	19.0	35.6	-
Banfield Mountain Pillow	5600	3/29	SP	16.5	30.3	-
Baree Creek	5500	4/02	77	31.1	68.9	49.6
Baree Midway	4600	4/02	62	24.4	52.3	33.8
Baree Trail	3800	4/02	0	0.0	8.8	7.8
Bear Mountain	5400	3/28	112	45.6	80.5	-
Bristow Creek	3900	3/29	21	8.0	11.9	-
Brush Creek	5000	3/27	28	8.1	14.5	13.1
Brush Creek Timber	5000	3/27	24	7.0	12.5	11.7
Cedar Grove	4100	3/30	15	5.7	17.5	-
Davis Creek	5400	3/27	59	22.3	32.6	-
Fernie	3500	3/30	11	3.3	10.5	8.8
Field	4200	4/01	17	4.7	9.7	5.8
Garver Creek	4250	3/27	28	10.3	10.9	-
Garver Creek Pillow	4250				9.1	-
Glacier	4100	3/29	67	26.1	45.7	28.7
Graves Creek	4300	3/26	38	13.1	26.7	19.5
Gray Creek	5100	3/29	60	18.5	27.1	19.2
Halverson Creek	4850	3/28	87	37.9	61.4	-
Hawkins Lake	6450	3/27	76	28.5	43.9	-
Hawkins Lake Pillow	6450	3/27	SP	25.0	42.2	-
Keeler Creek	3300	3/28	0	0.0	11.7	-
Kicking Horse	5400	4/01	42	13.4	21.5	15.2
Kimberley	3800	3/28	17	4.2	8.6	7.5
Lost Soul	4800	3/29	35	12.1	18.3	-
Marble Canyon	5000	3/29	44	12.9	16.1	13.2
Morrissey Ridge	6100				44.1	29.4
New Fernie	4100	3/30	30	10.4	22.8	15.8
Poorman Creek	5100	3/30	63	24.5	51.1	-
Poorman Creek Pillow	5100	3/30	SP	21.4	48.3	-
Red Mountain	6000	3/29	47	16.0	28.3	20.3
Sinclair Pass	4500	3/30	25	5.8	8.7	5.2
Stahl Peak	6050	3/26	97	37.2	53.6	-
Sullivan Mine	5100	3/30	42	12.9	20.0	14.6
Upper Elk River	4400	3/28	11	4.2	7.4	7.4
Weasel Divide	5450	3/26	77	29.3	51.2	35.3

Average based on 1953-67 period. SP - Snow pillow observation - water content only.

DRAINAGE BASIN and/or SNOW COURSE		THIS YEAR			PAST RECORD	
					Water Content (inches)	
NAME	Elevation	Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Last Year	Average
FLATHEAD RIVER						
Bassoo Peak	5150	3/29	14	4.4	15.2	12.2
Beaver Lake	5900	4/03	48	16.3	38.3	24.0
Big Creek	6750	3/28	95	37.5	65.2	46.7
Camp Misery	6400	3/28	110	42.4	66.4	46.8
Desert Mountain	5600	3/29	40	13.2	23.3	16.3
Fatty Creek	5500	3/28	55	17.5	31.4	22.8
Griffin Creek Divide	5150	3/29	29	8.6	16.6	12.6
Gunsight Lake	6300	4/03	75	29.9	56.6	41.0
Hell Roaring Divide	5770	3/30	67	26.4	45.7	33.1
Holbrook	4530	3/31	9	3.7	13.7	10.4
Kishenehn	3890	3/30	15	4.6	9.4	9.6
Logan Creek	4300	3/27	13	3.8	8.6	8.6
Marias Pass	5250	3/27	42	10.6	29.4	18.8
Mineral Creek	4000	4/01	36	11.9	26.6	21.4
Noisy Creek	3600	3/28	0	0.0	1.8	-
North Fork Jocko	6330	3/29	84	32.3	65.5	47.2
Spotted Bear Mountain	7000	4/03	30	10.6	21.0	15.1
Tr nkus Lake	6100	4/03	95	39.6	54.3	44.2
Twin Creeks	3580	4/03	0	0.0	15.5	11.4
Upper Holland Lake	6200	4/03	70	25.6	54.3	36.1
CLARK FORK RIVER						
Black Pine	7100	3/30	33	9.9	24.4	14.1
Black Pine Pillow	7100	3/30	SP	10.2	25.0	14.1
Combination	5600	3/30	17	4.5	9.5	-
Combination Pillow	5600	3/30	SP	5.1	-	-
Copper Bottom	5200	3/30	14	6.4	20.4	-
Copper Camp	6950	3/30	58	20.1	56.0	-
Copper Creek	5700	3/30	27	9.2	28.2	15.1
Copper Lake Creek	6100	3/30	45	14.6	43.0	-
Cotter Mine	6250	Course Destroyed			34.7	17.2
Coyote Hill	4200	3/28	8	3.2	15.2	10.4
El Dorado Mine	7800	3/28	61	17.2	34.2	21.2
Fred Burr Pass	8000	3/29	60	17.9	43.8	26.6
Gold Creek Lake	7200	3/28	51	13.9	25.9	15.9
Heart Lake Trail	4800	3/28	27	9.2	39.4	23.0
Hoodoo Basin	6000	3/28	93	35.4	80.8	54.5
Hoodoo Basin Pillow	6000	3/30	SP	34.8	80.7	54.0
Hoodoo Creek	5900	3/28	88	33.4	78.3	50.6
Intergaard	6450	3/31	29	7.3	13.5	8.5
Lookout	5250	3/30	59	20.8	34.5	38.4
Lubrecht Flume	4680	3/30	5	1.8	8.4	-
Lubrecht Flume Pillow	4680	3/30	SP	1.8	10.4	-

Average based on 1953-67 period. SP - Snow pillow observation - water content only.

DRAINAGE BASIN and/or SNOW COURSE		THIS YEAR			PAST RECORD	
NAME	Elevation	Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches) Last Year	Water Content (inches) Average
CLARK FORK RIVER (Continued)						
Lubrecht Forest No. 3	5450	3/28	15	4.6	11.4	7.4
Lubrecht Forest No. 4	4650	3/28	1	0.5	2.8	2.9
Lubrecht Forest No. 6	4040	3/28	0	0.0	2.1	3.0
Lubrecht Hydroplot	4200	3/30	0	0.0	5.8	-
North Fork Elk Creek	6250	3/30	28	8.7	22.3	-
North Fork Elk Creek Pillow	6250	3/30	SP	8.4	23.6	-
Peterson Meadows	7200	3/27	39	7.9	17.3	-
Peterson Meadows Pillow	7200	3/27	SP	9.0	-	-
Red Lion	7100	3/29	40	10.9	27.3	16.6
Skalkaho Summit	7260	3/29	57	18.5	44.6	26.4
Slide Rock Mountain	7100	3/29	43	12.0	27.2	15.4
Southern Cross	6500	3/31	20	5.7	8.5	7.4
Storm Lake	7780	3/27	48	10.4	19.0	14.6
Stuart Mill	6500	3/31	23	6.0	10.0	7.1
Stuart Mountain	7400	3/31	66	23.9	44.3	32.2
TV Mountain	6800	3/29	44	14.0	32.9	18.5
BITTERROOT RIVER						
Ambrose	6480	3/31	41	11.4	20.6	13.7
East Fork Ranger Station	5400	3/27	13	3.8	9.4	7.1
Gibbons Pass	7100	3/28	67	21.0	34.4	23.0
Kit Carson	5020	3/26	20	5.4	13.2	8.6
Lolo Pass	5230	3/29	54	20.2	52.3	33.8
Lost Horse	5940	3/29	65	23.6	56.1	33.0
Moose Creek	6200	4/02	48	12.7	25.4	16.2
Nez Perce Camp	5580	3/26	32	9.4	25.5	15.2
Nez Perce Pass	6570	3/26	39	11.8	27.2	16.8
Saddle Mountain	7940	3/27	66	19.6	38.3	25.8
Saddle Mountain Pillow	7940	3/27	SP	20.0	38.3	-
Savage Pass	6600	3/29	54	19.7	42.9	28.6
Twelvemile Creek	5600	3/29	41	14.3	36.3	-
Twelvemile Creek Pillow	5600	3/29	SP	12.1	31.0	-
Twin Lakes	6510	3/29	80	28.8	67.4	45.0
Twin Lakes Pillow	6400	3/29	SP	28.0	63.8	-

Average based on 1953-67 period. SP - Snow pillow observation - water content only.

DRAINAGE BASIN and/or SNOW COURSE		THIS YEAR			PAST RECORD	
					Water Content (inches)	
NAME	Elevation	Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Last Year	Average
MISSOURI RIVER BASIN						
BEAVERHEAD RIVER						
Bloody Dick	7600	3/29	35	8.6	18.7	11.1
Camp Creek	6800	3/28	33	8.7	9.9	9.0
Carter Creek	7400	4/01	34	8.4	7.4	5.8
Dad Creek Lake	8400	4/04	65	12.1	19.4	13.0
Elk Horn Springs	7800	3/30	25	5.3	14.9	9.8
Gold Stone	8100	3/29	40	10.4	24.4	14.8
Kilgore	6200	3/29	34	9.7	8.9	8.9
Lakeview Canyon	6930	3/30	35	9.4	15.7	11.5
Lakeview Ridge	7400	3/30	30	8.4	12.2	10.0
Lemhi Pass	7480	3/28	32	7.0	10.3	8.5
Lemhi Ridge	8100	3/28	39	8.2	15.8	-
Sawtelle Mountain	8715	3/30	87	29.3	40.3	-
Trail Creek	7090	3/28	30	6.4	11.8	8.4
White Elephant	7700	3/30	63	21.0	-	-
White Pine Ridge	8850	4/04	33	6.8	8.7	5.2
RUBY RIVER						
Branham Lakes	8850	3/31	74	23.0	36.8	-
Clover Meadow	8600	4/04	58	15.9	22.1	16.0
Divide	7800	4/04	38	9.8	14.3	9.7
Middle Mill Creek	7850	3/31	48	13.3	20.4	-
Notch	8500	4/04	52	13.9	22.0	13.6
Smuggler Mine	6960	3/31	33	8.1	10.4	-
BIG HOLE RIVER						
Abundance Lake	8800	4/04	66	16.5	30.4	19.8
Calvert Creek	6450	3/30	30	7.6	20.0	-
Darkhorse Lake	8600	4/04	64	20.4	42.3	27.0
Foolhen	8280	4/04	47	12.3	26.6	17.8
Jahnke Creek	7340	3/29	33	8.2	17.9	9.9
Jahnke Lake Trail	7200	3/29	33	8.0	19.2	-
Mudd Lake	7650	3/30	46	14.0	31.8	-
Palisade Creek	8250	3/30	65	22.3	46.6	-
Slag-A-Melt Lake	8750	4/04	65	20.8	37.9	-
JEFFERSON RIVER						
Berry Meadow	7300	3/27	23	5.0	12.5	7.6
Copper Mountain	7700	3/30	36	9.0	13.6	11.3
Nez Perce Creek	6500	3/30	22	5.7	7.9	-
Picnic Grounds	6500	3/31	16	3.3	6.2	4.6
Pipestone Pass	7200	3/27	19	4.2	7.1	6.0
Rocker Peak	8000	3/27	46	10.8	22.7	-
Rocker Peak Pillow	8000	3/27	SP	10.8	21.5	-
Uncle Sam Gulch	6500	3/27	22	5.2	12.2	-

Average based on 1953-67 period. SP - Snow pillow observation - water content only.

DRAINAGE BASIN and/or SNOW COURSE		THIS YEAR			PAST RECORD	
					Water Content (inches)	
NAME	Elevation	Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Last Year	Average
MADISON RIVER						
Big Springs	6500	3/30	53	18.1	27.1	20.8
Black Bear	7950	3/28	96	34.5	55.0	-
Black Bear Pillow	7950	3/28	SP	30.9	49.6	-
Black Canyon	7850	3/26	83	30.6	37.6	34.6
Black Moose	8125	3/26	89	36.2	44.6	40.4
Call Road	8050	4/04	42	10.7	15.0	10.8
Four Mile	6900	3/26	37	8.4	9.2	8.0
Hebgen Dam	6550	4/03	33	9.2	9.2	11.3
Island Park	6315	3/30	43	13.2	16.3	15.6
Jack Creek	7500	3/27	28	7.2	3.3	6.0
Lake Creek	6100	3/27	29	7.2	6.8	7.8
Latham Springs	7650	3/26	82	31.4	36.0	33.5
Lower Twin	7900	3/26	62	17.6	26.9	19.0
Lucky Dog	6900	3/26	64	22.8	29.6	24.8
Madison Plateau	7750	3/28	60	19.2	31.1	-
Madison Plateau Pillow	7750	3/28	SP	19.1	32.5	-
Norris Basin	7500	3/28	31	8.3	14.4	10.1
North Meadow	7500	3/26	40	8.2	11.5	7.9
Potomageton Park	7150	3/30	39	11.2	15.0	15.4
Sentinel Creek	8300	3/30	62	20.0	28.8	23.6
Targhee Pass	7000	3/30	41	10.5	16.5	-
Tepee Creek	8000	3/27	46	12.2	20.2	13.4
Tepee Creek Pillow	8000	3/27	SP	10.5	16.4	-
Valley View	6500	3/30	39	10.8	17.6	15.9
West Yellowstone	6700	4/04	34	10.2	14.8	10.8
West Yellowstone Pillow	6700	3/31	SP	7.4	10.6	8.6
Whiskey Creek	6800	3/28	54	16.5	25.2	-
Whiskey Creek Pillow	6800	3/28	SP	14.3	23.8	-
GALLATIN RIVER						
Arch Falls	7350	3/28	52	11.2	12.9	12.6
Bear Basin	8150	3/26	59	16.4	21.0	20.2
Bridger Bowl	7250	3/27	52	17.0	32.4	27.6
Bridger Bowl Pillow	7250	3/27	SP	17.1	30.5	26.6
Carrot Basin	9000	4/02	91	32.8	45.6	-
Devils Slide	8100	3/28	68	17.5	23.6	22.4
Hood Meadow	6600	3/28	46	11.3	11.0	10.9
Lick Creek	6860	3/28	46	10.7	8.0	10.2
Lick Creek Pillow	6860	3/28	SP	8.9	7.0	10.1
Little Park	7400	3/26	45	10.8	17.3	15.4
Maynard Creek	6210	3/27	45	14.8	20.5	16.7
Maynard Creek Pillow	6210	3/27	SP	7.9	11.8	11.4
New World	6700	3/27	42	11.2	9.8	11.0
Shower Falls	8100	3/28	76	21.3	28.0	26.8
Shower Falls Pillow	8100	3/28	SP	19.6	27.0	23.5
Twenty-One Mile	7150	3/29	41	12.2	21.2	17.4

Average based on 1953-67 period. SP - Snow pillow observation - water content only.

DRAINAGE BASIN and/or SNOW COURSE		THIS YEAR			PAST RECORD	
					Water Content (inches)	
NAME	Elevation	Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Last Year	Average
MISSOURI RIVER (Main Stem)						
Boulder Mountain	7950	3/26	45	12.6	28.6	16.8
Chessman Reservoir	6200	4/03	20	4.5	3.8	4.2
Deadman Creek	6450	3/28	29	6.8	15.9	11.4
Deadman Creek Pillow	6450	3/28	SP	5.6	13.4	-
Elk Peak	8000	3/27	39	10.4	21.1	16.9
Frohner Meadows	6480	3/26	28	6.9	11.8	-
Frohner Meadows Pillow	6480	3/26	SP	7.2	-	-
Grasshopper	7000	3/27	25	5.5	5.2	5.4
Kings Hill	7500	3/30	36	8.7	21.0	13.2
Stemple Pass	6600	4/04	28	6.6	16.4	10.8
Ten Mile Lower	6600	4/02	30	6.5	9.0	6.9
Ten Mile Middle	6800	4/02	42	9.6	16.6	10.8
Ten Mile Upper	8000	4/02	50	10.9	19.6	14.0
SUN-TETON-MARIAS RIVERS						
Badger Pass	6900	4/03	72	26.0	57.7	37.2
Blue Lake	5900	4/03	58	17.6	40.4	-
Cabin Creek	5200	3/28	9	2.6	8.3	7.3
Five Bull	5700	4/03	11	3.6	11.9	6.9
Freight Creek	6000	4/03	29	8.0	25.4	16.6
Goat Mountain	7000	4/01	22	6.6	17.1	11.7
Mount Lockhart	6400	3/26	39	11.8	40.2	-
Mount Lockhart Pillow	6400	3/26	SP	10.6	35.3	-
Waldron	5600	3/26	13	3.5	18.2	-
Waldron Pillow	5600	3/26	SP	6.6	15.5	-
Wrong Creek	5700	3/30	20	6.9	24.7	16.0
Wrong Ridge	6800	3/30	35	10.0	31.6	21.9
JUDITH RIVER						
Avalanche	7100	3/30	63	18.1	22.8	-
Big Snowy	7150	3/30	60	16.5	20.2	-
Crystal Lake	6100	3/30	48	12.6	11.8	12.8
Rock Creek	5600	3/30	34	8.2	7.4	8.8
Spur Park	8100	3/28	49	12.4	33.0	21.5
Spur Park Pillow	8100	3/28	SP	13.6	34.8	-
MUSSELSHELL RIVER						
Daisy Peak	7600	3/27	42	9.2	16.4	-
Eagle Creek	7000	3/28	37	8.8	16.0	-
Forest Lake	6400	3/28	34	8.1	15.0	-
Haymaker	8050	3/29	45	10.5	19.4	-
Johnson Park	6450	3/27	17	4.6	6.8	-

Average based on 1953-67 period. SP - Snow pillow observation - water content only.

DRAINAGE BASIN and/or SNOW COURSE		THIS YEAR			PAST RECORD	
					Water Content (inches)	
NAME	Elevation	Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Last Year	Average
MILK RIVER						
Bear Paw Ski Area	5200	3/29	5	1.4	4.8	-
Boxelder Creek	5100	3/29	11	2.8	-	-
King Creek Saddle	4550	4/01	0	0.0	0.0	-
King Springs	4150	4/01	0	0.0	0.0	-
Kiwanis Camp	3720	3/29	0	0.0	-	-
Mission Mountain	5050	4/01	0	0.0	0.0	-
Rocky Boy	4700	3/29	0	0.0	1.8	4.5
Rocky Boy Pillow	4700	3/29	SP	1.1	1.8	-
Sucker Creek	3960	3/27	0	0.0	-	-
Taylor Road	4080	3/29	0	0.0	-	-
ST. MARY RIVER						
Hudson Bay Divide	5800	3/30	40	11.1	28.3	18.9
ALBERTA - BOW RIVER BASIN						
Bow River #1	5100	3/28	26	6.9	15.2	9.4
Chateau Lawn #8	5700	3/28	41	12.8	18.9	11.3
Mirror Lake #6	6600	3/29	36	11.0	22.1	12.7
Mount Eisenhower #10	5000	3/29	20	4.7	11.0	4.9
Upper Pipestone #2	5300	3/28	26	5.9	16.0	9.0
UPPER YELLOWSTONE RIVER						
Bald Ridge	7500	3/29	39	10.2	11.2	12.5
Bots Sots	8000	4/02	56	10.9	-	-
Camp Senia	7890	4/02	47	9.5	9.2	6.4
Canyon	7750	3/28	43	13.0	20.2	16.1
Cooke Station	8150	3/29	46	13.3	26.0	19.0
Crevice Mountain	8400	3/28	28	5.8	10.4	8.8
East Boulder (S)	9250	4/04	77	24.0[A]	-	-
East Entrance	7000	3/31	28	7.7	10.2	9.7
Fisher Creek	9100	3/29	85	28.6	52.7	36.1
Fisher Creek Pillow	9100	3/29	SP	25.4	50.8	-
Grizzly Peak	8400	3/30	79	17.8	25.6	16.5
Independence	7850	3/31	46	12.6	20.0	18.2
Lake Camp	7850	3/30	32	7.2	11.7	9.9
Lupine Creek	7300	3/31	26	8.1	14.3	10.3
Mill Creek	7500	3/30	44	9.9	10.3	-
Monument Peak	8800	3/31	59	18.6	31.0	24.8
Northeast Entrance	7400	4/04	22	4.8	13.0	9.1
Northeast Entrance Pillow	7350				11.6	8.3

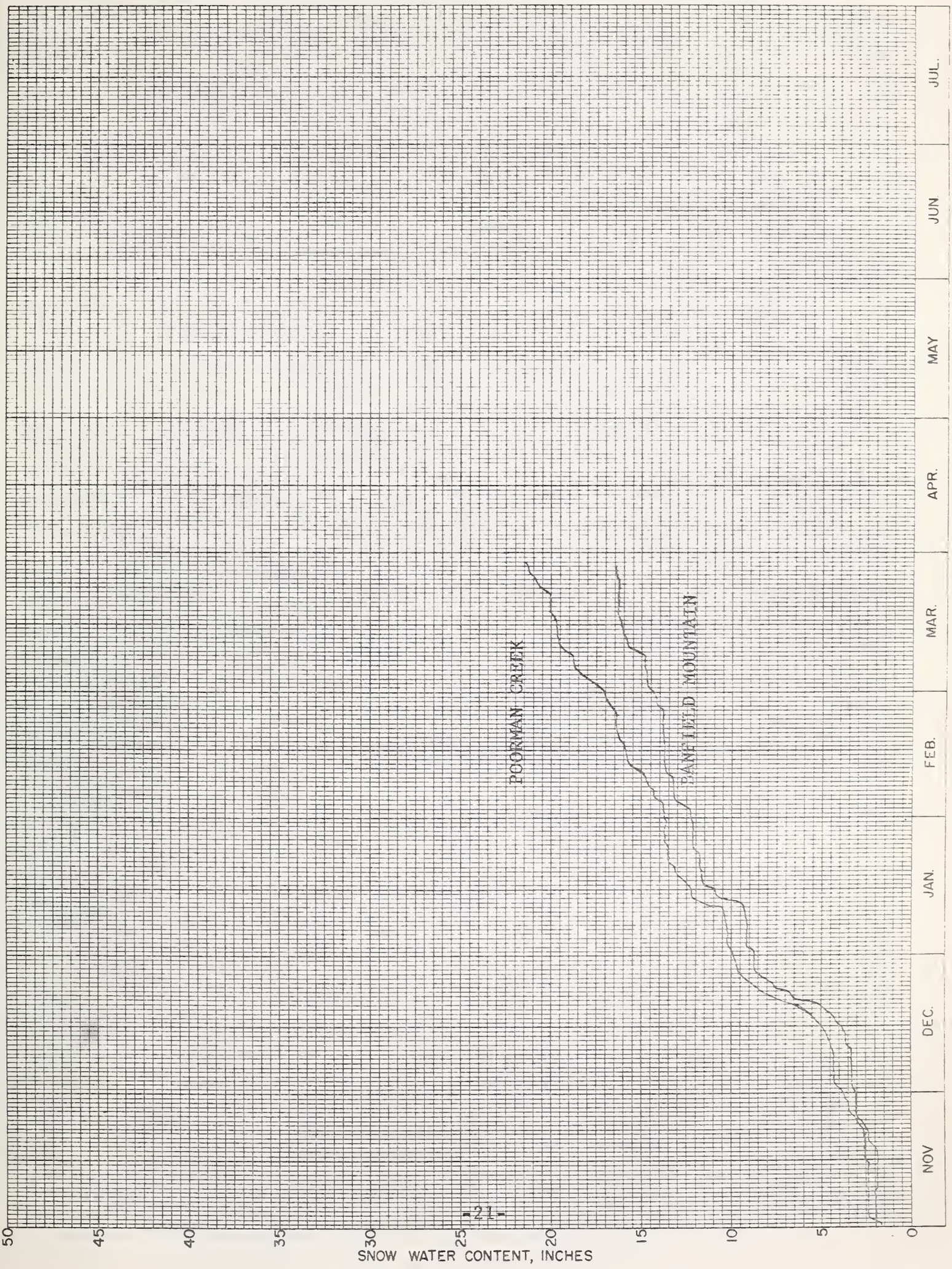
Average based on 1953-67 period. SP - Snow pillow observation - water content only.
A - Aerial observation.

DRAINAGE BASIN and/or SNOW COURSE		THIS YEAR			PAST RECORD	
					Water Content (inches)	
NAME	Elevation	Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Last Year	Average
UPPER YELLOWSTONE RIVER (Continued)						
Picket Pin Lower	6200	3/30	16	4.6	-	-
Picket Pin Middle	7250	4/03	40	12.1	-	-
Picket Pin Upper	8100	4/03	74	18.9	-	-
Picket Pin (T)	9450	4/04	63	17.0 A	-	-
Placer Basin (F)	8800	4/04	69	18.0 A	-	-
Porcupine Ranger Station	6500	3/29	30	7.2	7.8	7.6
Sacajawea	6550	3/27	37	11.0	12.1	13.0
South Fork Shields	8100	3/29	59	17.6	27.7	24.1
Star Lake (M)	9670	4/04	77	27.0 A	-	-
Sylvan Pass	7100	4/01	38	10.5	18.2	13.4
Thumb Divide	7900	4/01	52	15.1	26.9	22.5
Timberline Creek	8850	4/02	73	14.0	23.8	15.5
West Rosebud	7500	3/21	33	8.8	14.9	10.6
White Mill	8700	3/29	64	19.5	35.9	25.8
Wolverine	7650	4/02	33	8.9	18.2	-

Average based on 1953-67 period. SP - Snow pillow observation - water content only.
A - Aerial observation.

SNOW PILLOW DATA
WATER YEAR 1973

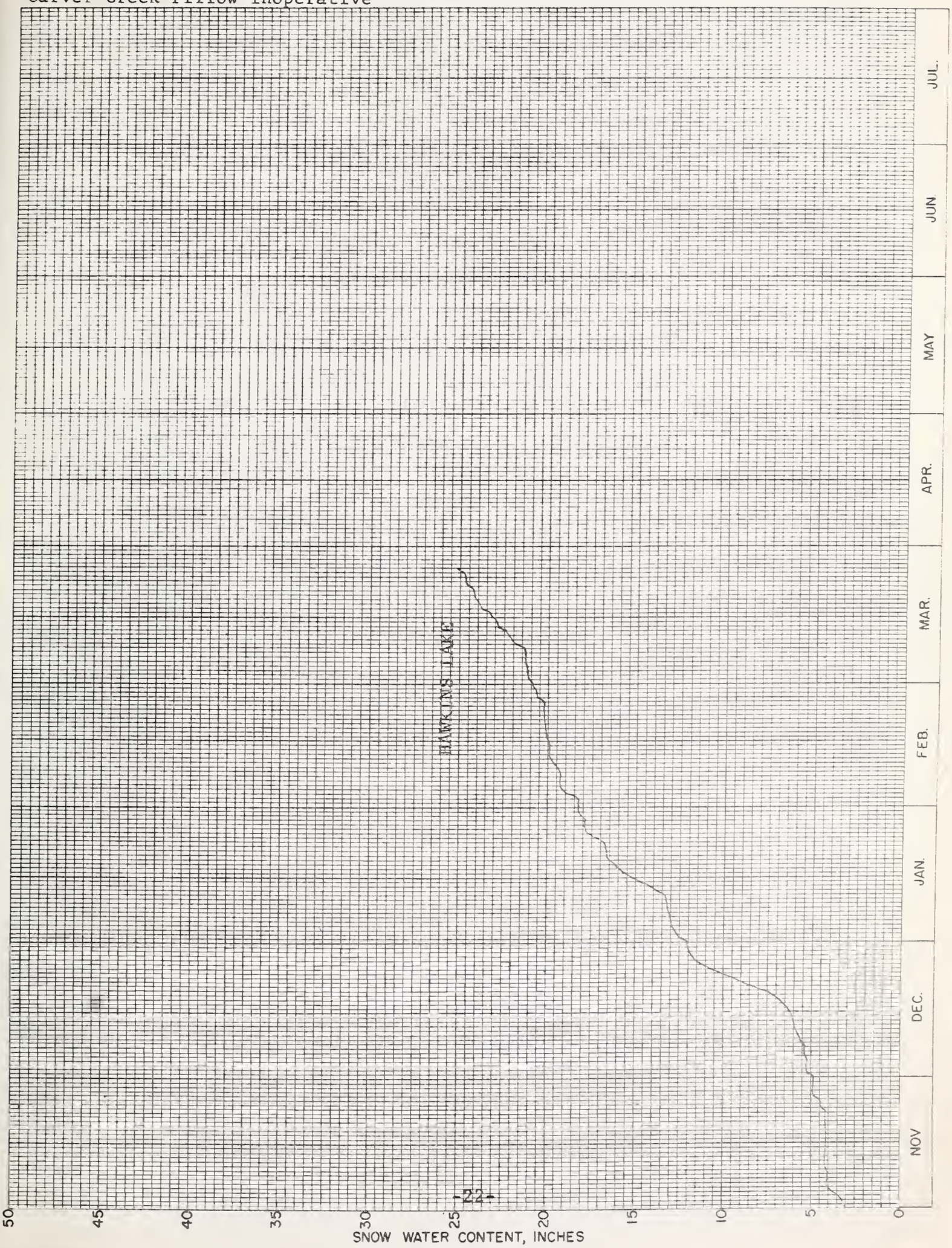
No. _____ Elev. _____ Drainage: KOOTENAI



SNOW PILLOW DATA
WATER YEAR 1973

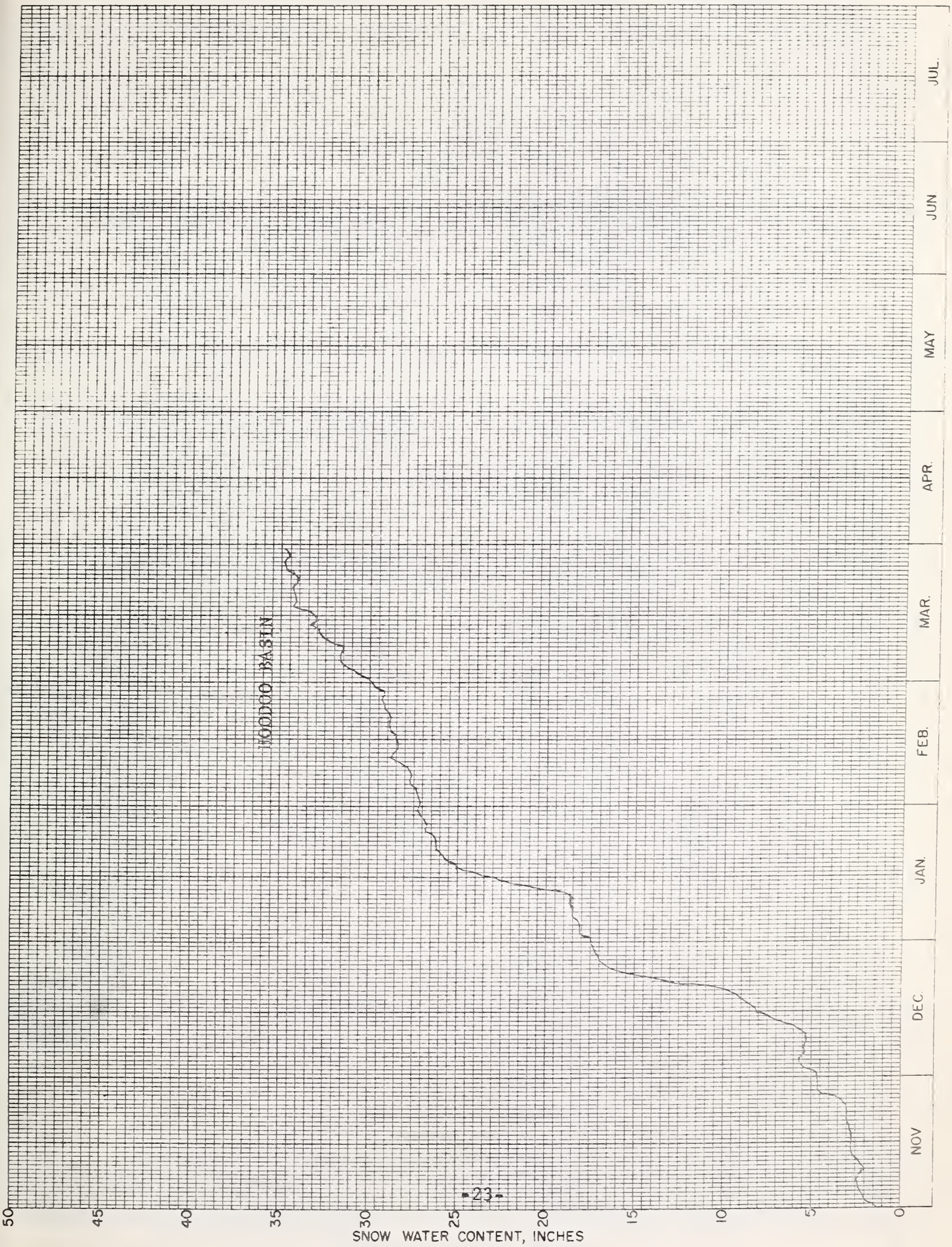
No. Elev. Drainage: KOOTENAI

Garver Creek Pillow inoperative



SNOW PILLOW DATA
WATER YEAR 1973

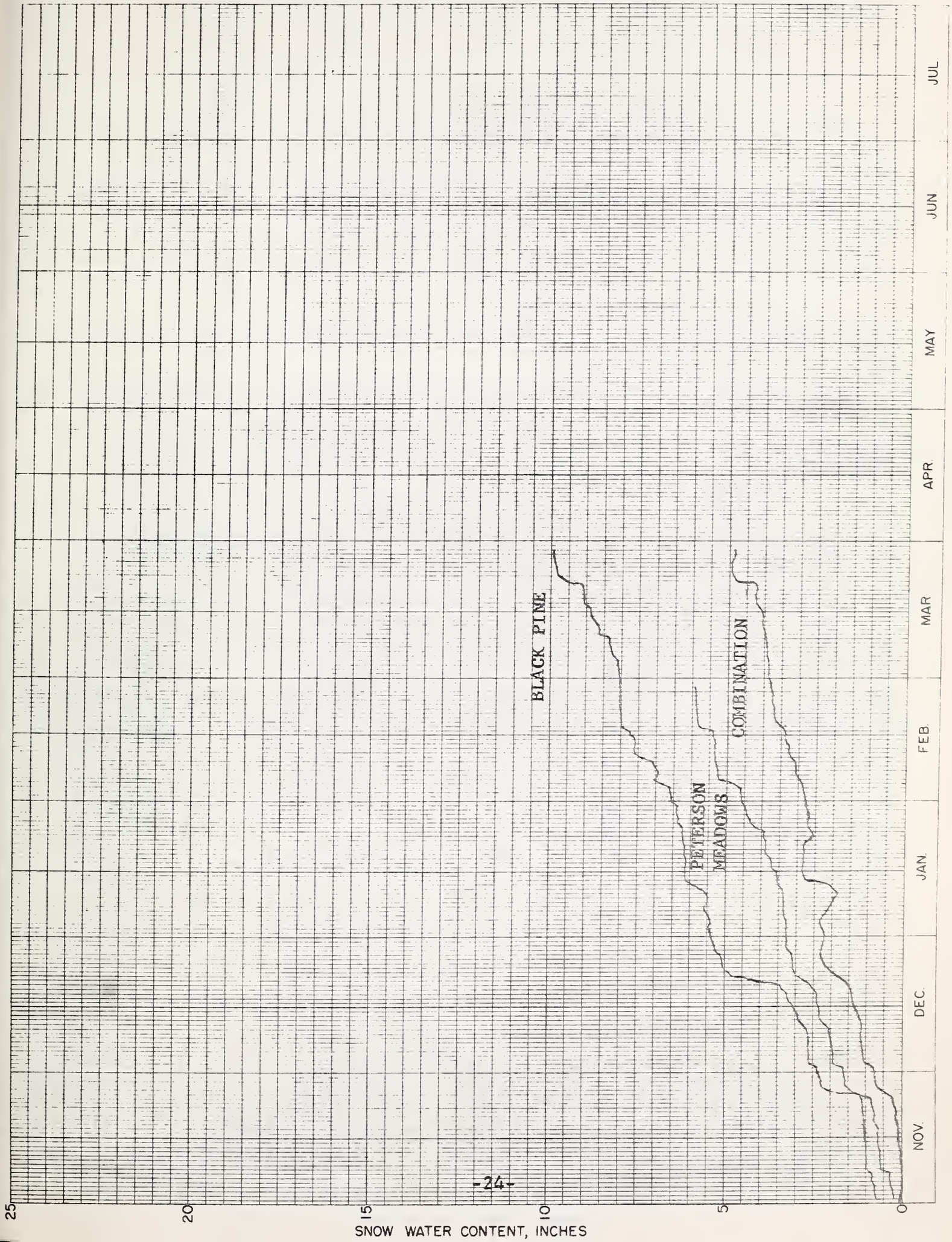
No. _____ Elev. _____ Drainage: CLARK FORK



7-P-18764B-1

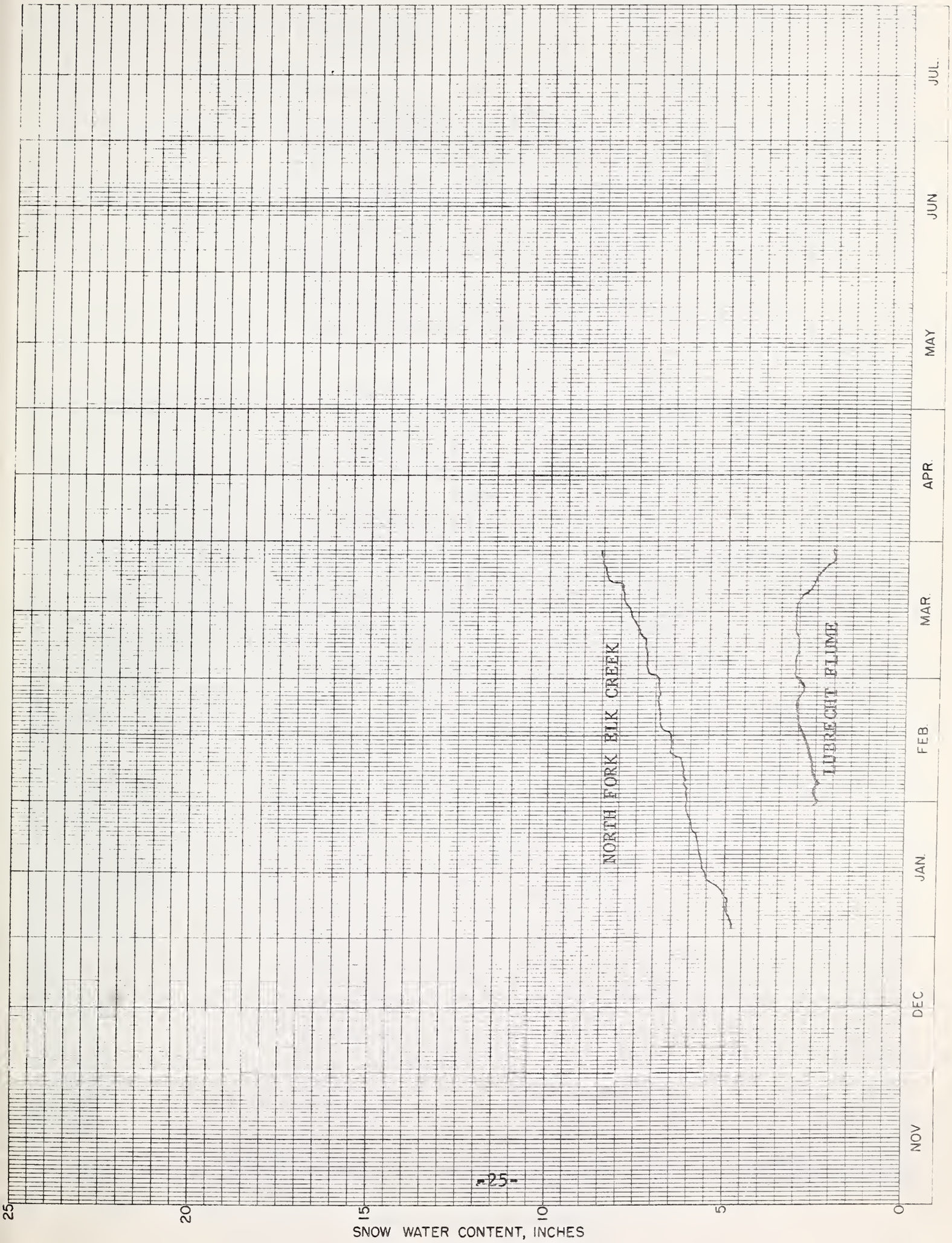
SNOW PILLOW DATA
WATER YEAR 1973

No. _____ Elev. _____ Drainage. CLARK FORK



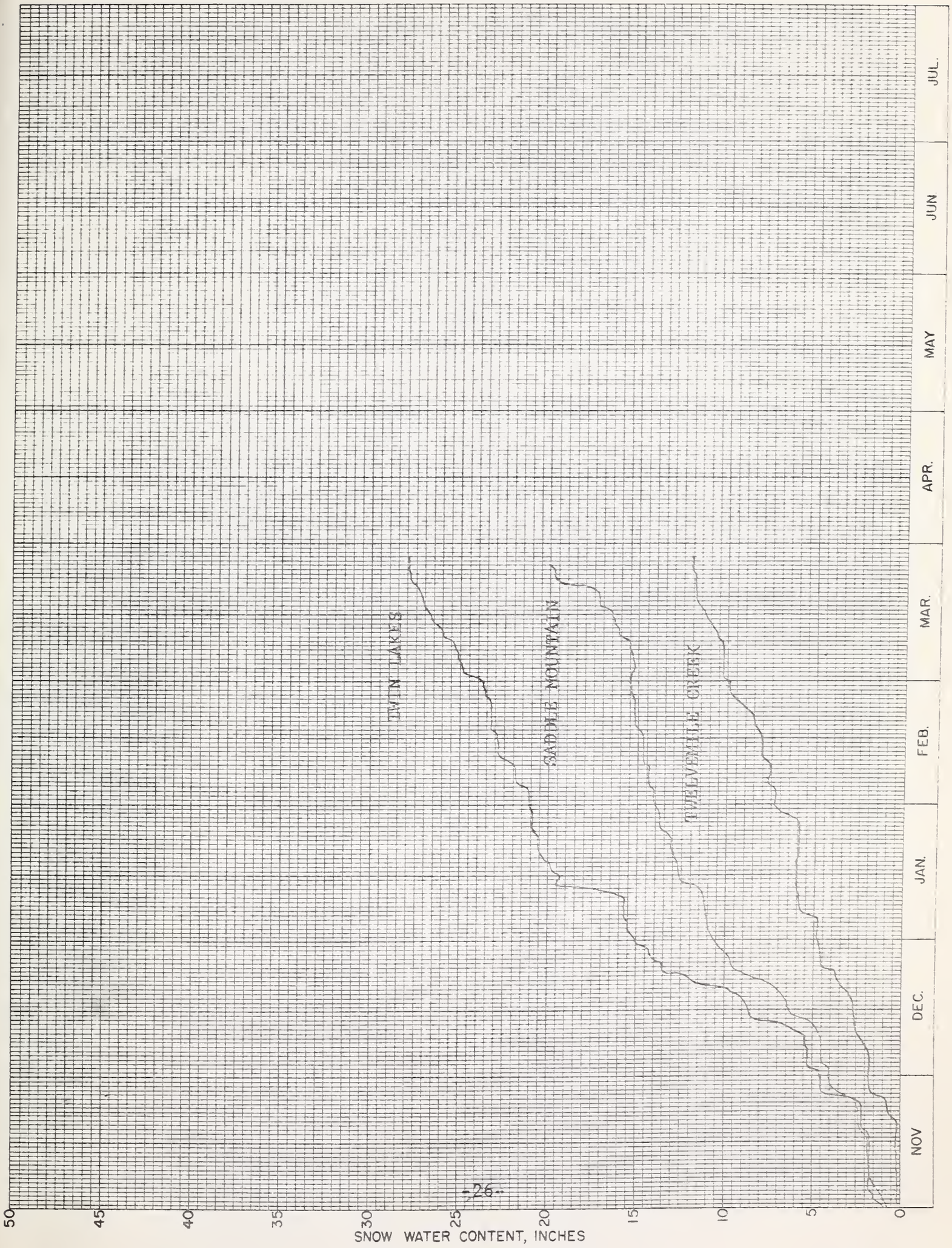
SNOW PILLOW DATA
WATER YEAR 1973

No. _____ Elev. _____ Drainage. BLACKFOOT



SNOW PILLOW DATA
WATER YEAR 1973

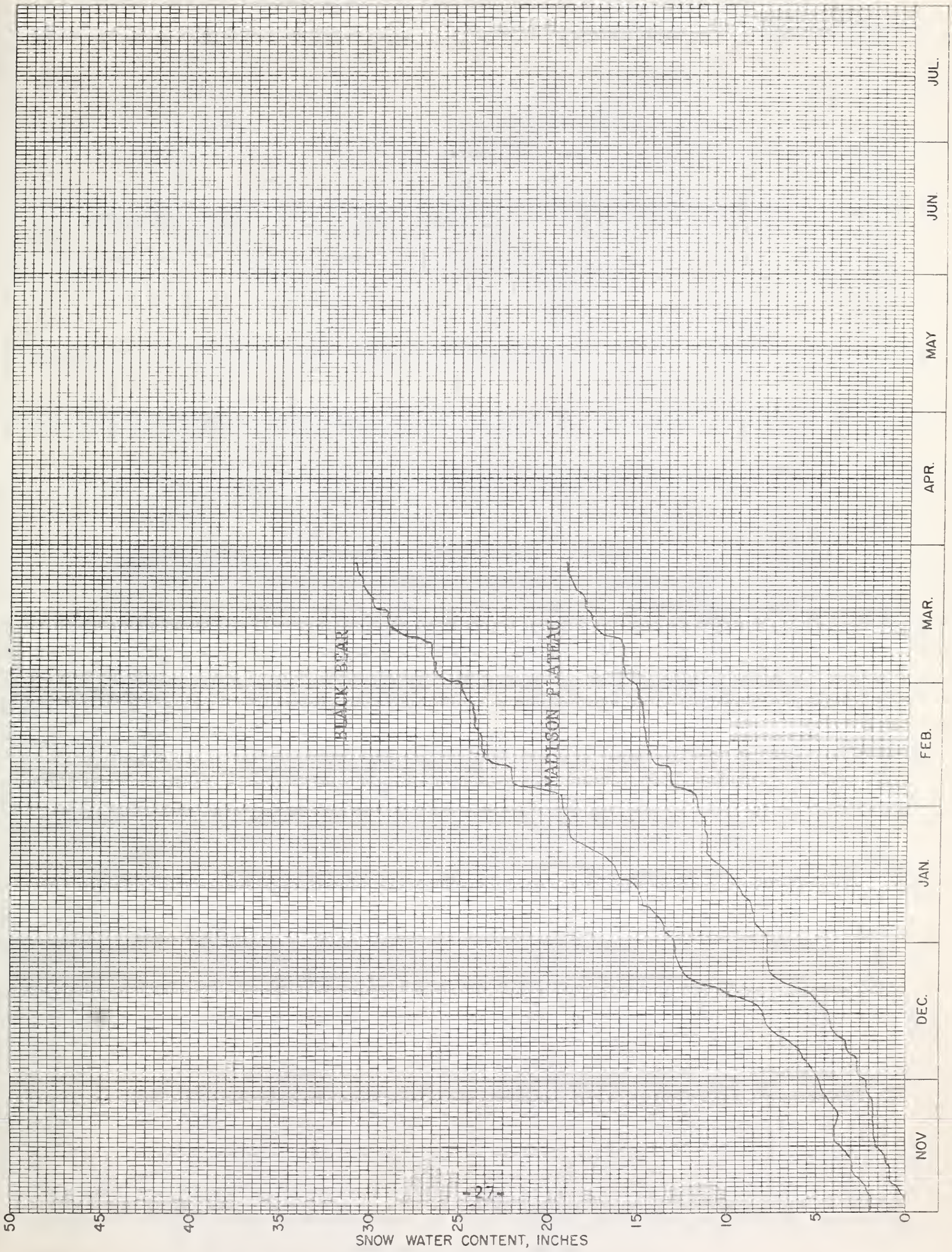
No. _____ Elev. _____ Drainage BITTERROOT



7-P-18764P-1

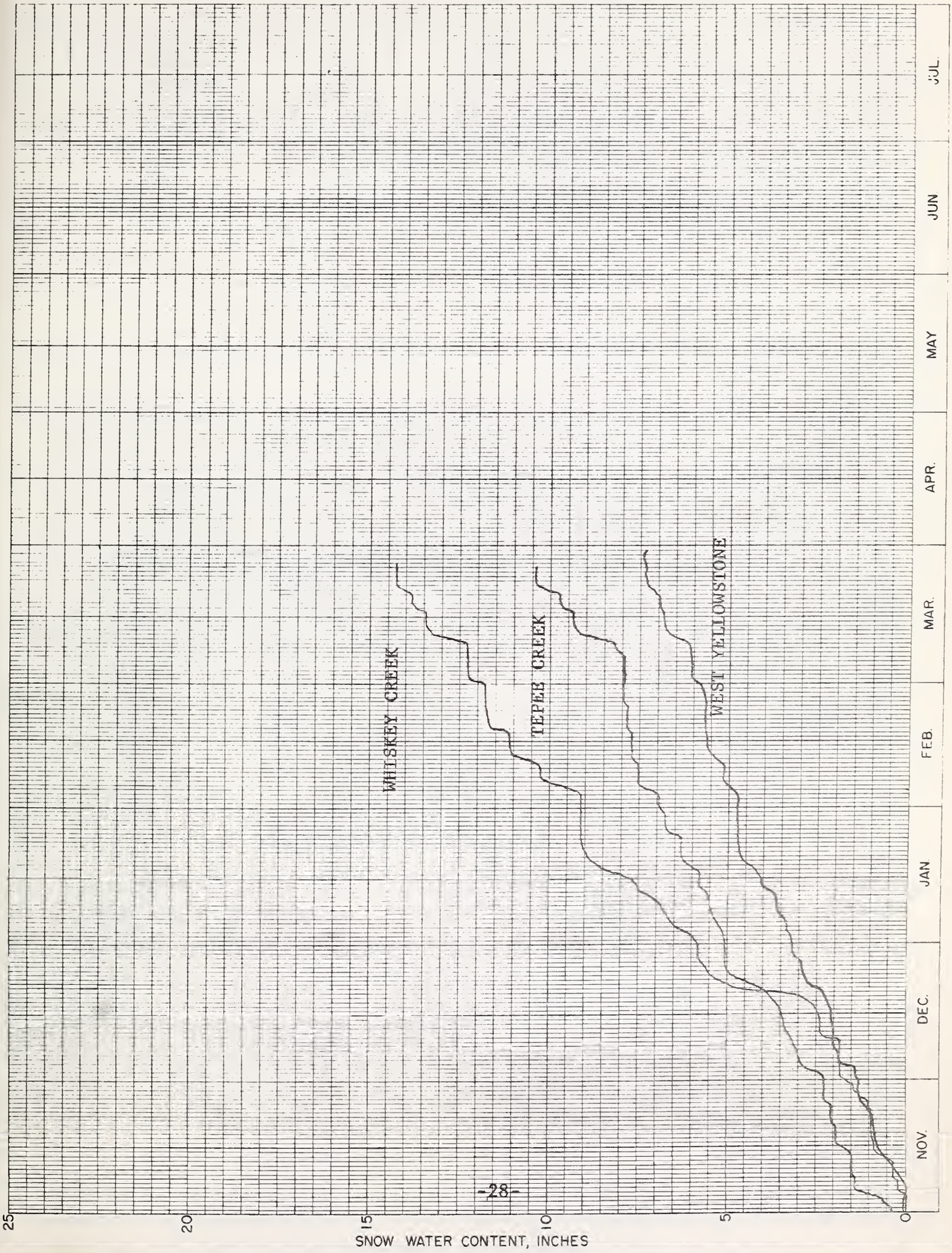
SNOW PILLOW DATA
WATER YEAR 1973

No. _____ Elev. _____ Drainage: MADISON



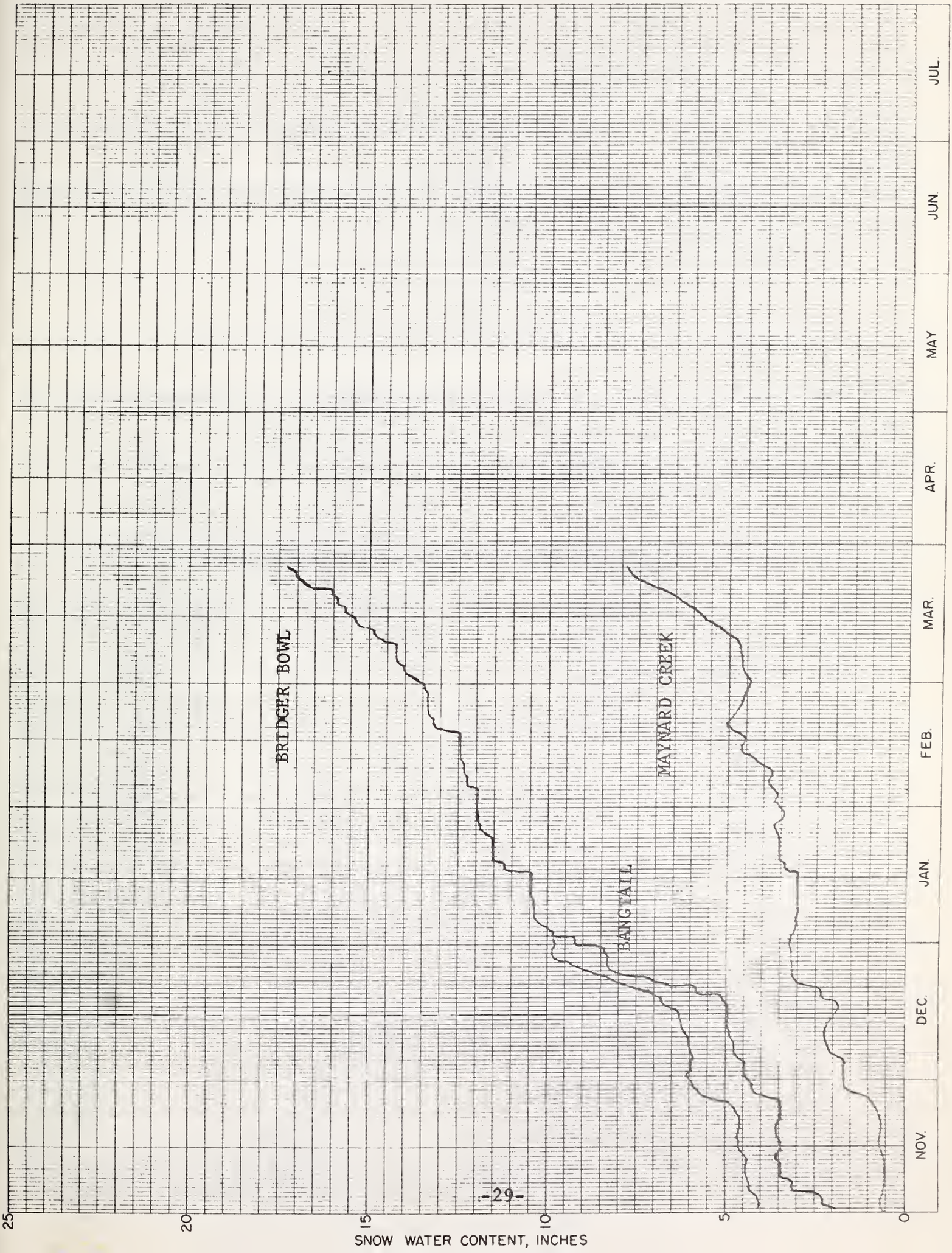
SNOW PILLOW DATA
WATER YEAR 1973

No. _____ Elev. _____ Drainage. MADISON



SNOW PILLOW DATA
WATER YEAR 1973

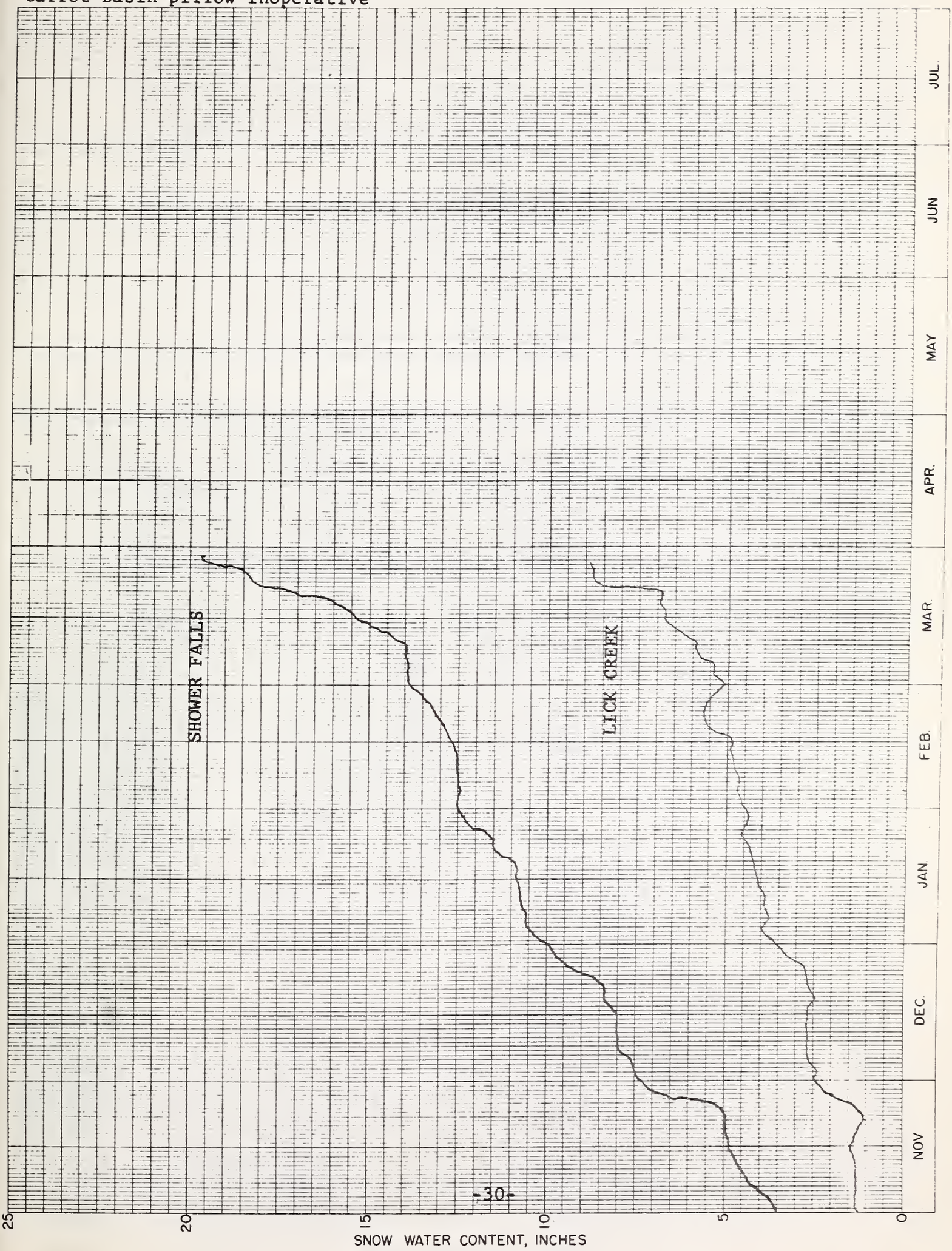
No. _____ Elev. _____ Drainage. GALLATIN



SNOW PILLOW DATA
WATER YEAR 1973

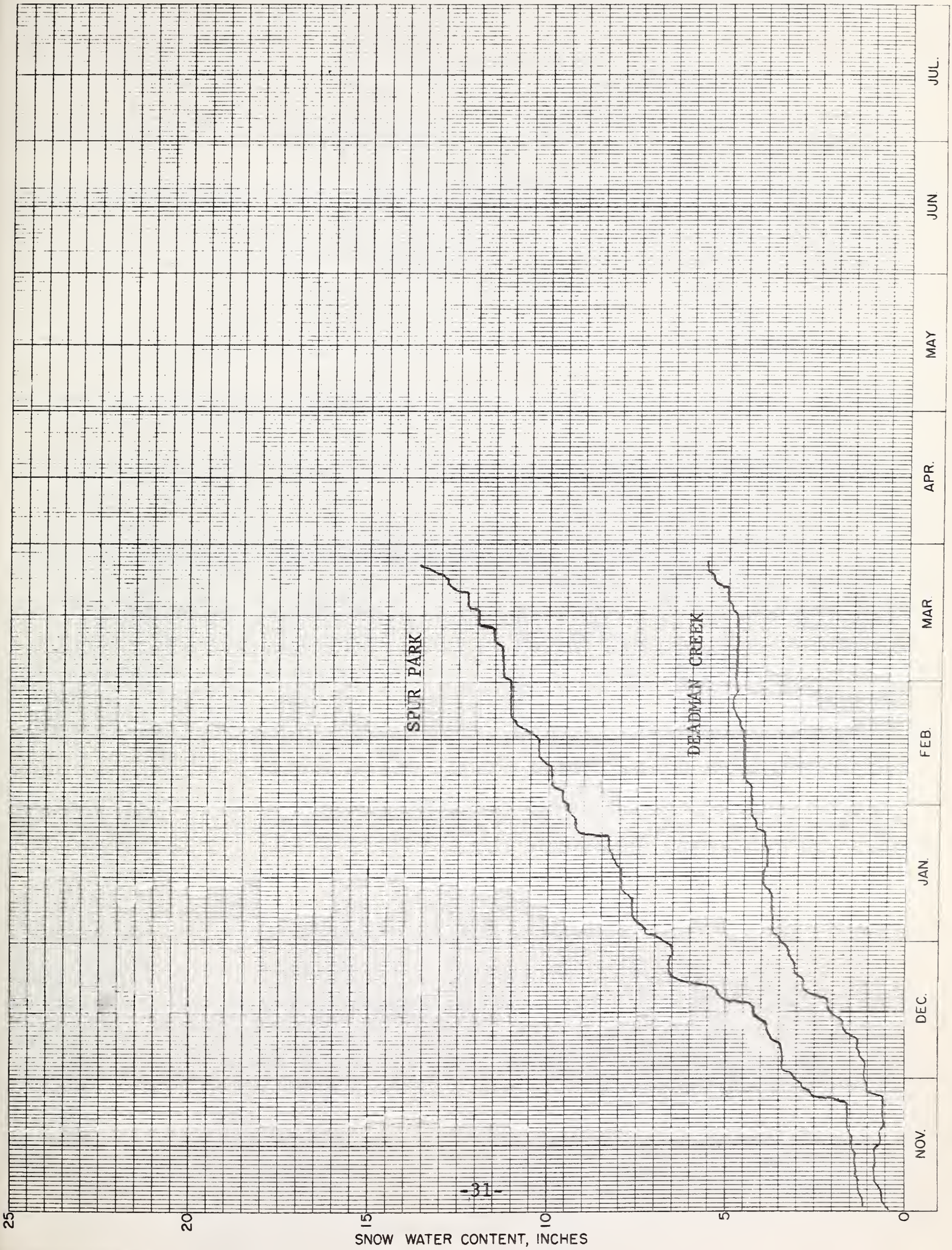
No. Elev. Drainage. GALLATIN

Carrot Basin pillow inoperative



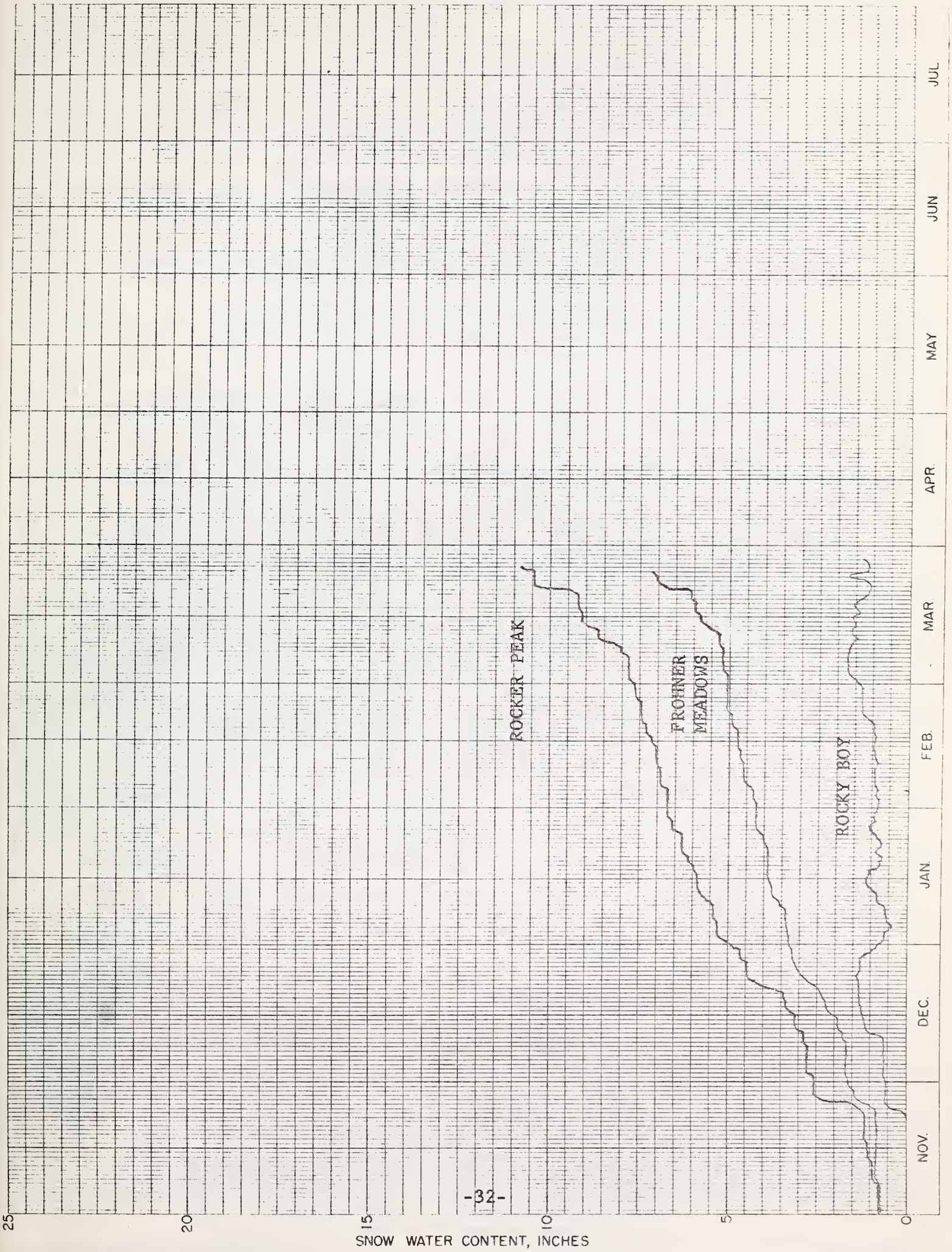
SNOW PILLOW DATA
WATER YEAR 1973

No. _____ Elev. _____ Drainage. JUDITH-JEFFERSON-MISSOURI



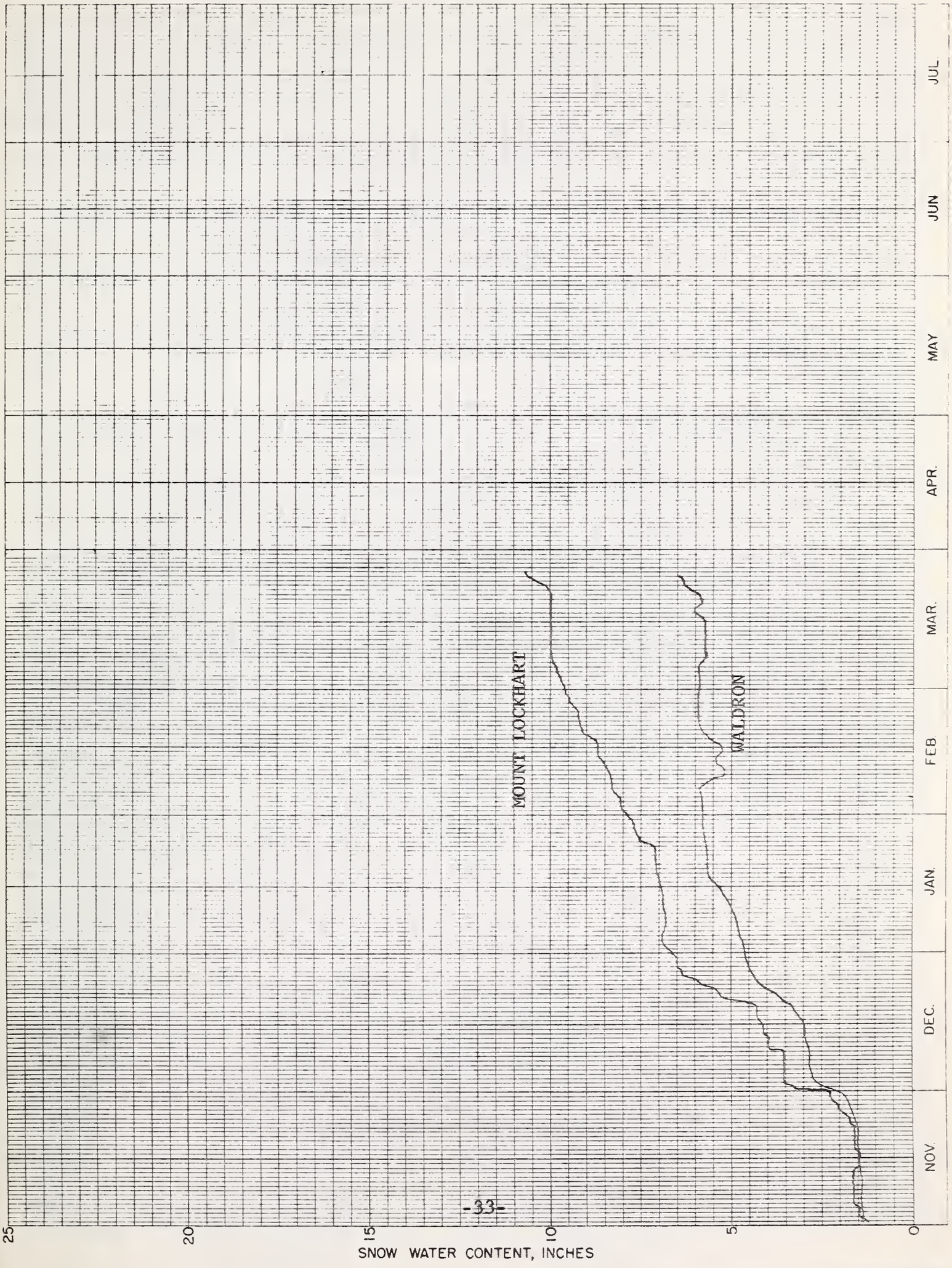
SNOW PILLOW DATA
WATER YEAR 1973

No. _____ Elev. _____ Drainage. JEFFERSON-MISSOURI-MILK



SNOW PILLOW DATA
WATER YEAR 1973

No. _____ Elev. _____ Drainage. SUN-TETON

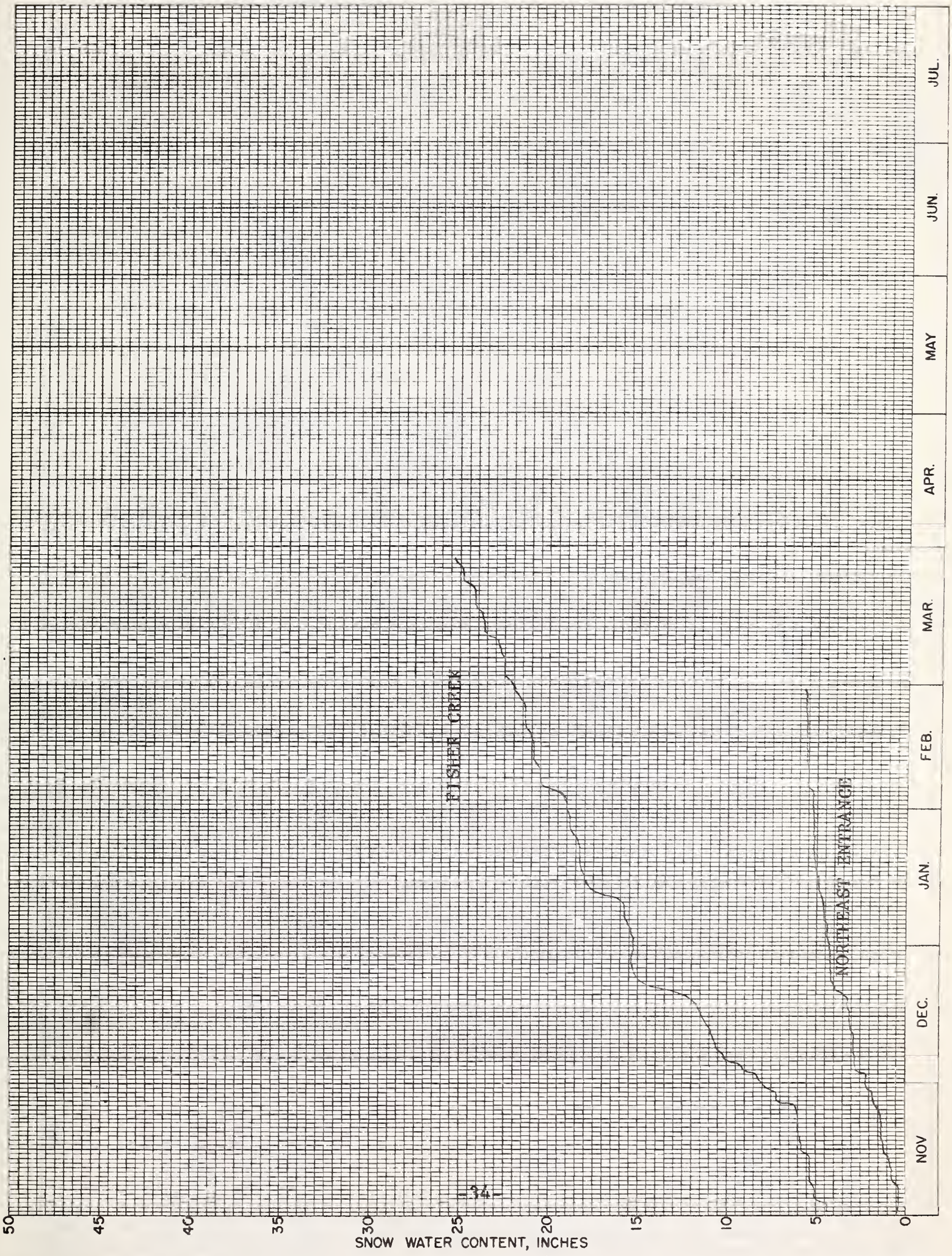


U. S. DEPARTMENT OF AGRICULTURE, SOIL CONSERVATION SERVICE

7-P-18764A-L

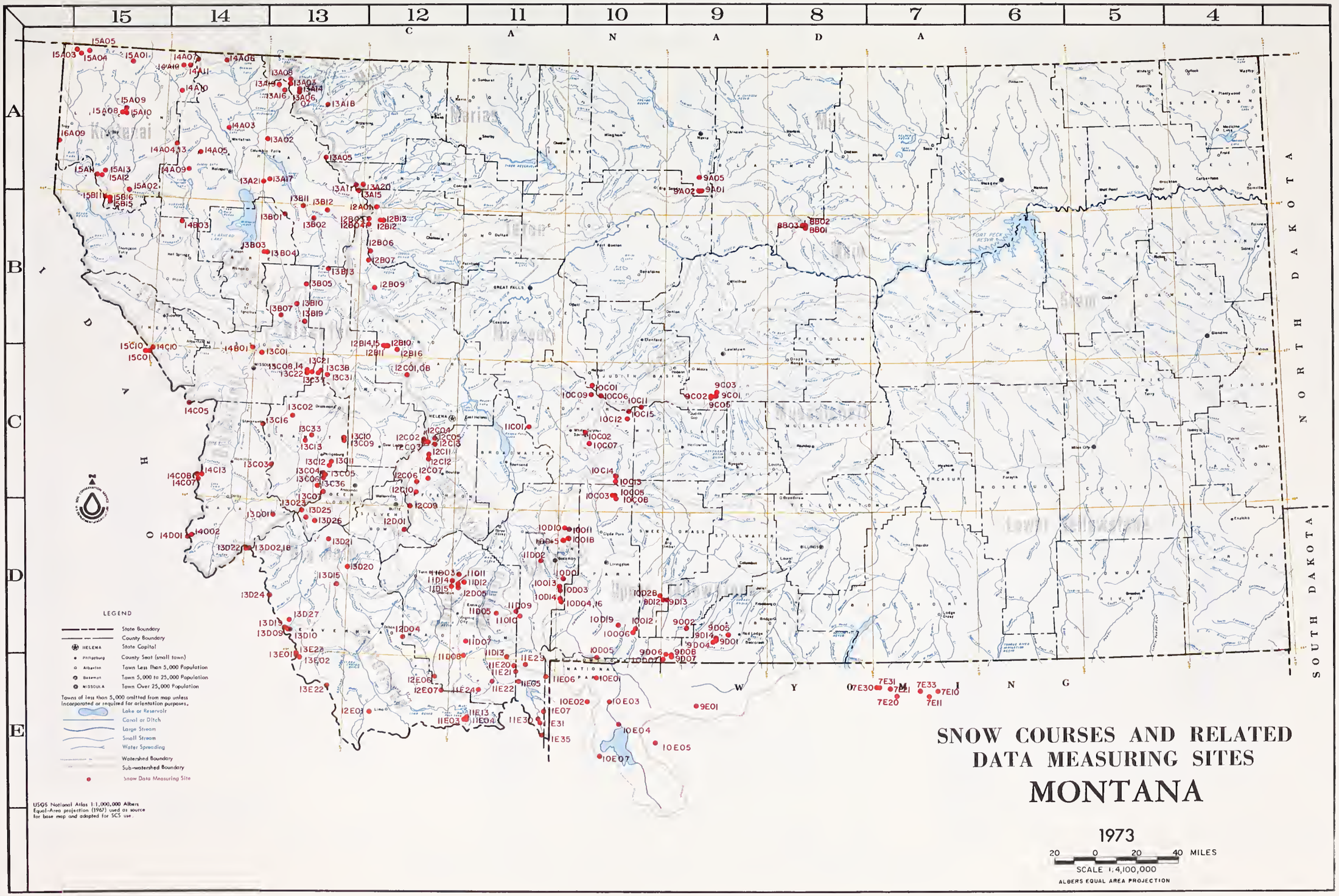
SNOW PILLOW DATA
WATER YEAR 1973

No. _____ Elev. _____ Drainage YELLOWSTONE



U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE

7-P-18764B-L



SNOW COURSES AND RELATED DATA MEASURING SITES
MONTANA

1973

20 0 20 40 MILES
SCALE 1:4,100,000
ALBERS EQUAL AREA PROJECTION

LEGEND

━ ━ ━	State Boundary
─ ─ ─	County Boundary
HELENA	State Capitol
Philipsburg	County Seat (small town)
Alberton	Town Less Than 5,000 Population
Bozeman	Town 5,000 to 25,000 Population
MISSOULA	Town Over 25,000 Population

Towns of less than 5,000 omitted from map unless incorporated or required for orientation purposes.

	Lake or Reservoir
	Canal or Ditch
	Large Stream
	Small Stream
	Water Spreading
	Watershed Boundary
	Sub-watershed Boundary
●	Snow Data Measuring Site

USGS National Atlas 1:1,000,000 Albers Equal-Area projection (1967) used as source for base map and adapted for SCS use.

INDEX to MONTANA SNOW COURSES and SOIL MOISTURE STATIONS

SNOW COURSES

COLUMBIA RIVER BASIN

Drainage Basin & Snow Course	Number	Elev.	Sec.	Twp.	Range	Record Began	Measuring Dates 1/	Meas. By 2/
KOOTENAI RIVER								
Bald Eagle Peak	15A11	5700	6	27N	31W	1969	3,4,5,5½,6	1
Banfield Mountain	15A08	5600	4	32N	30W	1969	2,3,4,5,5½,6	1
Baree Creek	15B11	5500	36	26N	31W	1956	3,4,5,5½	2
Baree Midway	15B16	4600	31	26N	30W	1966	3,4,5,5½	2
Baree Trail	15B15	3800	5	25N	30W	1965	3,4,5,5½	2
Bristow Creek	15A10	3900	2	32N	30W	1969	2,3,4,5,5½,6	1
Brush Creek	14A04	5000	12	30N	26W	1937	3,4,5	1,2
Brush Creek Timber	14A13	5000	12	30N	26W	1969	3,4,5	1,2
Cedar Grove	15A13	4100	35	28N	31W	1969	2,3,4,5,5½,6	1
Davis Creek	15A04	5400	20	37N	33W	1969	2,3,4,5,5½,6	1
Garver Creek	15A05	4250	18	37N	32W	1969	2,3,4,5,5½,6	1
Graves Creek	14A11	4300	1	36N	25W	1937	3,4,5,5½,6	1
Hawkins Lake	15A03	6450	18	37N	33W	1969	2,3,4,5,5½,6	1
Keeler Creek	16A09	3300	25	30N	35W	1969	3,4,5	1
Lost Soul	15A09	4800	31	33N	29W	1969	2,3,4,5,5½,6	1
Poorman Creek	15A12	5100	5	27N	31W	1969	2,3,4,5,5½,6	1
Red Mountain	15A01	6000	4	36N	29W	1937	3,4,5,5½,6	2
Stahl Peak	14A12	6050	5	36N	25W	1969	3,4,5,5½,6	1
Weasel Divide	14A07	5450	20	37N	24W	1937	3,4,5,5½,6	1
FLATHEAD RIVER								
Bassoo Peak	14B03	5150	11	24N	25W	1961	3,4,5	1,5
Beaver Lake	13A11	5900	31	28N	11W	1964	3,4,5	1
Big Creek	13B03	6750	7	22N	18W	1941	3,4,5, 6	1,5
Camp Misery	13A17	6400	30	28N	18W	1962	3,4,5	1,2
Desert Mountain	13A02	5600	24	31N	19W	1937	1,2,3,4,5, 6	1,2
Fatty Creek	13B04	5500	8	22N	18W	1962	3,4,5, 6	1,5
Flattop Mountain	13A19	6300	12	35N	18W	1968	4	1,6
Griffin Creek Divide	14A09	5150	11	28N	25W	1960	3,4,5	1,5
Gunsight Lake	13B12	6300	30	26N	13W	1964	3,4,5	1
Hell Roaring Divide	14A03	5770	35	32N	22W	1942	1,2,3,4,5,5½,6	2
Holbrook	13B13	4530	18	21N	13W	1951	1,2,3,4,5	1
Kishenehn	14A06	3890	14	37N	22W	1954	3,4	6
Logan Creek	14A05	4300	34	30N	24W	1937	3,4,5	1,2
Marias Pass	13A05	5250	34	30N	14W	1934	1,2,3,4,5	3
Mineral Creek	13A16	4000	29	35N	17W	1957	3,4,5	6
Noisy Creek	13A21	3600	35	28N	19W	1970	3,4,5	1,2
North Fork Jocko	13B07	6330	3	17N	17W	1941	3,4,5,5½,6	1,5
Spotted Bear Mountain	13B02	7000	23	25N	15W	1948	1,2,3,4,5	1
Trinkus Lake	13B01	6100	9	25N	17W	1948	3,4,5	1
Twin Creeks	13B11	3580	25	26N	16W	1951	1,2,3,4,5	1
Upper Holland Lake	13B05	6200	28	20N	15W	1948	3,4,5	1
CLARK FORK RIVER								
Black Pine	13C13	7100	26	8N	15W	1959	1,2,3,4,5,5½,6	1
Combination	13C33	5600	7	8N	14W	1971	1,2,3,4,5	1
Copper Bottom	12B16	5200	15	15N	8W	1971	3,4,5	1,2
Copper Camp	12B16	6950	3	15N	9W	1971	3,4,5	1,2
Copper Creek	12B10	5700	1	15N	9W	1962	3,4,5	1,2
Copper Lake Creek	12B15	6100	3	15N	9W	1971	3,4,5	1,2
Cotter Mine	12B11	6250	2	15N	9W	1962	3,4,5	1,2
Coyote Hill	13B10	4200	12	18N	16W	1947	1,2,3,4,5	1,2
El Dorado Mine	13C09	7800	23	8N	12W	1949	3,4	1
Fred Burr Pass	13C11	8000	12	6N	13W	1957	3,4,5	1
Gold Creek Lake	13C10	7200	14	8N	12W	1949	3,4	1
Heart Lake Trail	14C10	4800	11	14N	27W	1965	1,2,3,4,5,5½,6	1,2
Hoodoo Basin	15C10	6000	17	14N	27W	1967	1,2,3,4,5,5½,6	1,2
Hoodoo Creek	15C01	5900	16	14N	27W	1937	1,2,3,4,5,5½,6	1,2
Intergaard	13C04	6450	6	5N	13W	1936	2,3,4,5	4
Lubrecht Flume	13C38	4800	13	13N	14W	1971	1,2,3,4,5	8
Lubrecht Forest No. 3	13C21	5450	19	13N	14W	1951	1,2,3,4,5	8
Lubrecht Forest No. 4	13C22	4650	23	13N	15W	1951	1,2,3,4,5	8
Lubrecht Forest No. 6	13C08	4040	11	13N	15W	1951	1,2,3,4,5	8
Lubrecht Hydroplot	13C37	4200	22	13N	14W	1971	1,2,3,4,5	8
North Fork Elk Creek	13C31	6250	20	13N	13W	1968	1,2,3,4,5,5½,6	8
Peterson Meadows	13C36	7200	2	4N	14W	1971	1,2,3,4,5	2
Red Lion	13C12	7100	22	6N	13W	1958	3,4,5	1
Skalkaho Summit	13C03	7260	30	6N	17W	1937	3,4,5,5½,6	1
Slide Rock Mountain	13C02	7100	35	10N	16W	1937	3,4,5	1
Southern Cross	13C05	6500	8	5N	13W	1936	2,3,4	4
Storm Lake	13C07	7780	19	4N	13W	1939	1,2,3,4,5	1
Stuart Mill	13C06	6500	19	5N	13W	1936	2,3,4	4
Stuart Mountain	13C01	7400	6	14N	18W	1936	3,4,5,5½,6	8
TV Mountain	14B01	6800	33	15N	19W	1956	1,2,3,4,5,5½,6	8
BITTERROOT RIVER								
Ambrose	13C16	6480	28	9N	18W	1960	3,4,5	1
East Fork B. S.	13D01	5400	16	2N	17W	1937	3,4	1
Gibbons Pass	13D02	7100	4	2S	19W	1934	1,2,3,4,5,5½,6	1,3
Lost Horse	14C07	5940	5	4N	23W	1960	3,4,5,5½,6	1
Nez Perce Camp	14D02	5580	19	1S	23W	1937	3,4,5	1
Nez Perce Pass	14D01	6570	25	1S	24W	1937	3,4,5	1
Saddle Mountain	13D22	7940	5	2S	19W	1965	1,2,3,4,5,5½,6	1
Twelvemile Creek	14C13	5600	34	5N	23W	1968	1,2,3,4,5,5½,6	1
Twin Lakes	14C08	6510	32	5N	23W	1960	1,2,3,4,5,5½,6	1

HUDSON BAY BASIN

Drainage Basin & Snow Course	Number	Elev.	Sec.	Twp.	Range	Record Began	Measuring Dates 1/	Meas. By 2/
ST. MARY RIVER								
Hudson Bay Divide	13A18	5800	24	34N	14W	1962	3,4,5	3
Iceberg Lake No. 3	13A03	5600	1	35N	17W	1922	5	3,9
Josephine Lower No. 9	13A14	4900	22	35N	16W	1955	5	3,9
Mount Allen No. 7	13A07	5700	27	35N	16W	1922	5	3,9
Piegan Pass No. 6	13A06	5500	27	35N	16W	1922	5	3,9
Ptarmigan No. 8	13A08	5800	36	36N	17W	1937	5	3,9

MISSOURI RIVER BASIN

Drainage Basin & Snow Course	Number	Elev.	Sec.	Twp.	Range	Record Began	Measuring Dates 1/	Meas. By 2/
BEAVERHEAD RIVER								
Bloody Dick	13D10	7600	12	8S	16W	1948	3,4,5	1
Carter Creek	12D04	7400	22	8S	7W	1963	2,3,4	11
Dad Creek Lake	13E22	8400	24	12S	13W	1965	3,4,5	1
Elk Horn Springs	13D15	7800	21	4S	12W	1935	3,4,5	3
Gold Stone	13D09	8100	11	8S	16W	1948	3,4,5	1
Lakeview Canyon	11E04	6930	26	14S	2W	1948	1,2,3,4,5	10
Lakeview Ridge	11E03	7400	27	14S	2W	1948	1,2,3,4,5	10
Lemhi Pass	13E01	7480	9	10S	15W	1948	3,4	1
Lemhi Ridge	13E23	8100	4	10S	15W	1967	3,4	1
Trail Creek	13E02	7090	15	10S	15W	1948	3,4	1
White Pine Ridge	12E01	8850	18	14S	9W	1948	3,4,5	1
RUBY RIVER								
Granham Lakes	11D14	8850	5	4S	3W	1967	3,4,5	1,12
Clover Meadow	11D08	8600	28	9S	2W	1963	3,4,5	1
Divide	12E07	7900	14	12S	4W	1963	3,4,5	1
Middle Mill Creek	11D15	7850	17	4S	3W	1967	3,4,5	1,12
Notch	12E06	8500	18	11S	4W	1963	3,4,5	1
Smuggler Mine	12D05	6960	24	4S	4W	1967	3,4,5	1,12
BIG HOLE RIVER								
Abundance Lake	13D20	8800	7	3S	11W	1963	3,4,5	1
Calvert Creek	13D26	6450	34	2N	14W	1969	3,4,5	1
Darkhorse Lake	13D19	8600	4	8S	16W	1963	3,4,5	1
Foolhen	13D21	8280	11	1S	13W	1963	3,4,5	1
Jahnke Lake Trail	13D27	7200	24	7S	16W	1969	3,4,5	1
Mudd Lake	13D25	7650	24	2N	15W	1969	3,4,5	1
Palisade Creek	13D23	8250	3	2N	15W	1967	4,5	1
Slag-A-Melt Lake	13D24	8750	29	5S	17W	1968	3,4,5	1
JEFFERSON RIVER								
Berry Meadow	12C07	7300	8	5N	5W	1962	3,4	1
Copper Mountain	12C09	7700	13	3N	7W	1966	2,3,4,5,5½	4
Nez Perce Creek	12C10	6500	16	4N	6W	1967	2,3,4,5	4
Picnic Grounds	12C06	6500	21	5N	6W	1941	2,3,4	4
Pipestone Pass	12D01	7200	10	1N	7W	1938	1,2,3,4,5	1
Rocker Peak	12C11	8000	17	7N	5W	1968	1,2,3,4,5	1
Uncle Sam Gulch	12C12	6500	32	7N	5W	1968	3,4,5	1
MADISON RIVER								
Black Bear	11E35	7950	27	15S	5E	1972	1,2,3,4,5,5½,6	1,2
Call Road	11D07	8050	21	8S	2W	1962	3,4,5	1
Four Mile	11D12	6900	5	4S	2W	1965	3,4,5	1
Nebgen Dam	11E05	6550	22	11S	3E	1934	1,2,3,4,5	3
Jack Creek	11D05	7500	13	6S	1E	1961	3,4	1
Lake Creek	11E22	6100	27	11S	1E	1965	2,3,4,5	2
Lower Twin	11D11	7900	12	4S	3W	1965	3,4,5	1
Madison Plateau	11E31	7750	28	14S	5E	1968	1,2,3,4,5,5½,6	1,2
North Meadow	11D03	7500	24	3S	3W	1961	3,4,5	1
Potomageton Park	11E21	7150	33	10S	3E	1965	3,4,5	2
Sentinel Creek	11E20	8300	17	10S	3E	1965	3,4,5	2
Tepee Creek	11E24	8000	15	12S	1W	1965	2,3,4,5	2
West Yellowstone	11E07	6700	34	13S	5E	1934	1,2,3,4,5	1,3,6
Whiskey Creek	11E30	6800	19	14S	5E	1967	1,2,3,4,5,5½,6	2
GALLATIN RIVER								
Arch Falls	10D14	7350	3	5S	6E	1963	1,2,3,4,5,5½,6	1
Bear Basin	11D09	8150	9	6S	3E	1963	3,4,5	1
Bridger Bowl	10D15	7250	25	1N	6E	1965	1,2,3,4,5,5½,6	1
Carrot Basin	11E29	9000	18	10S	4E	1967	1,2,3,4,5	2
Devils Slide	10D04	8100	14	5S	6E	1935	1,2,3,4,5,5½,6	1
Hood Meadow	10D03	6600	22	4S	6E	1935	1,2,3,4,5,5½,6	1
Lick Creek	10D13	6860	10	4S	6E	1964	1,2,3,4,5,5½,6	1
Little Park	11D10	7400	22	6S	3E	1963	3,4,5	1
Maynard Creek	10D18	6210	19	1N	7E	1967	1,2,3,4,5,5½,6	1
New World	10D01	6700	24	3S	6E	1939	2,3,4	1
Shower Falls	10D16	8100	14	5S	6E	1966	1,2,3,4,5,5½,6	1
Taylor Peaks	11D13	8500	26	9S	2E	1967	3,4,5	1
Twenty-One Mile	11E06	7150	1	11S	5E	1934	1,2,3,4,5	3
MISSOURI RIVER MAIN STEM								
Boulder Mountain	11C01	7950	1	9N	3E	1963	3,4,5	1
Chessman Reservoir	12C05	6200	2	8N	5W	1936	1,2,3,4,5	3
Deadman Creek	10C09	6450	23	12N	8E	1966	1,2,3,4,5,5½,6	1
Elk Peak	10C07	8000	10	8N	8E	1963	3,4,5	1
Frohner Meadows	12C13	6500	23	8N	5W	1971	1,2,3,4,5	1
Grasshopper	10C02	7000	19	9N	8E	1938	3,4,5	1
Kings Hill	10C01	7500	34	13N	8E	1934	3,4,5,5½,6	1,3
Stemple Pass	12C01	6600	16	13N	7W	1934	3,4,5	3
Ten Mile Lower	12C02	6600	12	8N	6W	1935	1,2,3,4,5	3
Ten Mile Middle	12C03	6800	13	8N	6W	1934	1,2,3,4,5	3
Ten Mile Upper	12C04	8000	19	8N	5W	1935	1,2,3,4,5	3
SUN-TETON-MARIAS RIVERS								
Badger Pass	13A15	6900	4	27N	11W	1964	1,2,3,4,5	1
Blue Lake	13A20	5900	25	28N	11W	1969	1,2,3,4,5	1
Cabin Creek	12B06	5200	33	23N	10W	1949	3,4,5	2
Five-Bull	12B09	5700	25	20N	10W	1948	3,4,5	1
Freight Creek	12A01	6000	13	26N	10W	1948	3,4,5	1
Goat Mountain	12B07	7000	20	22N	10W	1934	3,4,5	3
Mount Lockhart	12B12	6400	18	25N	9W	1969	1,2,3,4,5,5½,6	2
Waldron	12B13	5600	17	25N	9W	1969	1,2,3,4,5,5½,6	2
Wrong Creek	12B04	5700	32	25N	10W	1949	3,4,5	2
Wrong Ridge	12B03	6800	17	25N	10W	1949	3,4,5	2
JUDITH RIVER								
Avalanche	9C02	7100	24	12N	17E	1966	3,4,5	1
Big Snowy	9C05	7150	25	12N	17E	1971	3,4,5	1
Crystal Lake	9C01	6100	19	12N	18E	1941	3,4,5	1
Rock Creek	9C03	5600	8	12N	18E	1966	3,4,5	1
Spur Park	10C06	8100	20	12N	9E	1963	1,2,3,4,5,5½,6	1
MUSSELSHELL RIVER								
Daisy Peak	10C15	7600	34	11N	11E	1969	3,4,5	2
Eagle Creek	10C13	7000	2	5N	10E	1969	3,4,5	2
Forest Lake	10C14	6400	26	6N	10E	1969	3,4,5	2
Haymaker	10C11	8050	16	11N	12E	1969	3,4,5	2
Johnson Park	10C12	6450	16	10N	11E	1969	3,4,5	2
MILK RIVER								
Bear Paw Ski Area	9A02	5200	21	28N	16E	1967	1,2,3,4,5	1,7
King Creek Saddle	8B02	4550	10	25N	24E	1971	1,2,3,4,5	5
King Springs	8B03	4150	9	25N	24E	1971	1,2,3,4,5	5
Mission Mountain	8B01	5050	15	25N	24E	1971	1,2,3,4,5	5
Rocky Boy	9A01	4700	22	28N	16E	1941	1,2,3,4,5	1,7
UPPER YELLOWSTONE RIVER								
Bald Ridge	10C05	7500	11	4N	10E	1961	3,4,5	1
Bot Sots	9D14	7750	35	7S	18E	1973	3,4,5	1
Camp Senia	9D01	7890	2	8S	18E	1937	3,4,5,5½,6	1
Cooke Station	9D07	8150	19	9S	15E	1966	3,4,5,5½,6	1,2
Crevice Mountain	10D05	8400	22	9S	9E	1935	3,4	2
Fisher Creek	9D06	9100	11	9S	14E	1966	3,4,5,5½,6	1,2
Grizzly Peak	9D05	8400	26	7S	19E	1961	1,2,3,4,5	1,2
Independence	10D06	7850	21	7S	12E	1940	3,4,5	1
Mill Creek	10D19	7500	6	7S	11E	1967	3,4,5	2
Monument Peak	10D12	8800	16	7S	12E	1961	3,4,5	1
Northeast Entrance	10D07	7400	33	9S	14E	1937	1,2,3,4,5,5½,6	1,6
Picket Pin Lower	9D13	6200	1	5S	14E	1972	1,2,3,4,5	13
Picket Pin Middle	9D12	7250	3	5S	14E	1972	1,2,3,4,5	13
Picket Pin Upper	10D28	8500	32	4S	14E	1972	1,2,3,4,5	13
Porcupine R. S.	10C03	6500	10	4N	10E	1938	3,4,5	1
Sacajawea	10D10	6550	36	2N	6E	1960	3,4,5	1
South Fork Shields	10C08	8100	13	4N	10E	1965	3,4,5	1
Timberline Creek	9D04	8850	10	8S	18E	1961	3,4,5,5½,6	1
West Rosebud	9D02	7500	9	7S	16E	1960	3,4	4
White Mill	9D08	8700	18	9S	15E	1966	3,4,5,5½,6	1,2

SOIL MOISTURE STATIONS

COLUMBIA RIVER BASIN

KOOTENAI RIVER								
Baree Trail	15B15M	3800	5	25N	30W	1964	Monthly	2
Murphy Lake R. S.	14A10M	3000	5	34N	25W	1964	Monthly	2
Raven R. S.	15A02M	3050	2	26N	29W	1964	Monthly	2
FLATHEAD RIVER								
Desert Mountain	13A02M	5600	24	31N	19W	1956	Monthly	1
Marias Pass	13A05M	5250	34	30N	14W	1950	Monthly	6
CLARK FORK RIVER								
Black Pine	13C13M	7100	26	8N	15W	1965	Monthly	1
Lubrecht Forest	13C14M	4100	11	13N	15W	1961	Monthly	8
Seeley Lake R. S.	13B19M	4030	21	17N	15W	1963	Monthly	2
Skalkaho Summit	13C03M	7260	30	6N	17W	1964	Monthly	1
BITTERROOT RIVER								
Gibbons Pass	13D18M	7100	4	2S	19W	1962	Monthly	1
Lolo Pass	14C05M	5250	11	10N	24W	1963	Monthly	1

MISSOURI RIVER BASIN

BEAVERHEAD RIVER								
Lakeview	11E13M	6700	23	14S	2W	1962	Monthly	10
MADISON RIVER								
West Yellowstone	11E07M	6700	34	13S	5E	1966	Monthly	6
GALLATIN RIVER								
Bridger Bowl	10D15M	7250	25	1N	6E	1966	Monthly	1
College Site No. 2	11D02M	4856	18	2S	5E	1956	Monthly	1
Lick Creek	10D13M	6860	10	4S	6E	1965	Monthly	1
Twenty-One Mile	11E06M	7150	1	11S	5E	1963	Monthly	6
MISSOURI RIVER MAIN STEM								
Kings Hill	10C01M	7420	34	13N	8E	1963	Monthly	1
Stemple Pass	12C08M	6350	16	13N	7W	1963	Monthly	1
MILK RIVER								
Beaver Creek	9A05M	3950	21	29N	16E	1969	Monthly	1
Rocky Boy	9A01M	4700	22	28N	16E	1969	Monthly	1
YELLOWSTONE RIVER								
Battle Ridge	10D11M	6020	32	2N	7E	1960	Monthly	1
Northeast Entrance	10D07M	7350	33	9S	14E	1962	Monthly	6

LEGEND

1/ Numerals 1,2,3,4,5,5½,6 refer to January 1, February 1, March 1, April 1, May 1, May 15, and June 1.

2/ Numerals refer to Agency making the snow surveys as follows:

1. Soil Conservation Service
2. Forest Service
3. Geological Survey
4. Montana Power Company
5. Bureau of Indian Affairs
6. National Park Service
7. MSU Agricultural Experiment Station
8. U. of M. School of Forestry
9. Department of Energy, Mines and Resources
10. Bureau of Sports Fisheries and Wildlife
11. Private Cooperator
12. Montana Conservation Districts
13. Montana Department of Fish and Game

Agencies and Organizations Cooperating in Montana Snow Surveys

GOVERNMENT AGENCIES

Canada:

Department of Energy, Mines and Resources, Alberta Water Investigations Branch, Department of Lands, Forests, and Water Resources, British Columbia

Federal:

Department of the Army
- Corps of Engineers

U.S. Department of Agriculture
- Forest Service
- Soil Conservation Service

U.S. Department of Commerce
- NOAA, National Weather Service

U.S. Department of the Interior
- Bonneville Power Administration
- Bureau of Indian Affairs
- Bureau of Reclamation
- Bureau of Sports Fisheries and Wildlife
- Geological Survey
- National Park Service

STATE

Montana Conservation Districts
Montana Water Resources Board
Montana State University - Agricultural Experiment Station
North Montana Branch Station - Agricultural Experiment Station
University of Montana - School of Forestry

PRIVATE

Montana Power Company

Other organizations and individuals furnish valuable information for snow survey reports. Their cooperation is gratefully acknowledged.

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